

**HEALTH RESEARCH SCIENCE
BOARD**

BIENNIAL REPORT

2005-2006

State of New York
Department of Health

**Health Research Science Board
January 1, 2005 - December 31, 2006**

Santo M. DiFino, M.D., Chair

Hematology-Oncology Associates of Central New York, P.C.
Syracuse, NY

Christine B. Ambrosone,* Ph.D.

Roswell Park Cancer Institute
Buffalo, NY

Geraldine Barish**

1 in 9, Long Island Breast Cancer Coalition
Baldwin, NY

Alexander P. Gross, P.E.**

Man-to-Man Awareness and Support Group
Syracuse, NY

Russell Hilf,* Ph.D.

University of Rochester School of Medicine and
Dentistry
Rochester, NY

Carl Johnson, M.S.**

New York State Department of Environmental
Conservation
Commissioner's Designee
Albany, NY

Laurence S. Kaminsky, Ph.D.**

Wadsworth Center
New York State Department of Health
Commissioner's Designee
Albany, NY

Philip J. Landrigan,* M.D., M.Sc.

Mount Sinai School of Medicine
New York, NY

Thomas J. Lester,* M.D.

Katonah Medical Group, P.C.
Katonah, NY

Alexander Yu Nikitin, M.D., Ph.D.**

Cornell University
Ithaca, NY

Arun Puranik,* M.D.

Capital District Radiation Oncology, P.C.
Troy, NY

Peter T. Rowley,+ M.D.

University of Rochester School of Medicine and
Dentistry
Rochester, NY

Elinor J. Spring-Mills,* Ph.D.

SUNY Upstate Medical University
Syracuse, NY

Lawrence Sturman, M.D., Ph.D.**

Director, Wadsworth Center
New York State Department of Health
Former Commissioner's Designee
Albany, NY

Jean Wactawski-Wende,* Ph.D.

University of Buffalo
Buffalo, NY

Marc Wilkenfeld,* M.D.

Columbia University Medical Center
New York, NY

* Current Board member

** Ex-officio member

+ Deceased

Current Department of Health Staff:

Bonnie Jo Brautigam

Program Director
Office of Research
Wadsworth Center

Barry E. Bruderer

Health Program Administrator
Office of Research
Wadsworth Center

Teresa Ascienzo

Associate Accountant
Office of Research
Wadsworth Center

Nancy Kim, Ph.D.

Center for Environmental Health
Division Environmental Health Assessment

David Quist, Esq., Counsel

Division of Legal Affairs

Former Department of Health Staff:

Martin D. Sorin, Ph.D.

Director
Office of Extramural Funding
Wadsworth Center

Nancy Nowakowski

Associate Accountant
Office of Extramural Funding
Wadsworth Center

Executive Summary

HEALTH RESEARCH SCIENCE BOARD BIENNIAL REPORT

2005-2006

The Health Research Science Board of the New York State Department of Health was established pursuant to the Laws of 1996, Chapter 279 (amended the following year by the Laws of 1997, Chapter 219). The legislation is codified in Title 1-B, Article 24 (Sections 2410-2413) of the Public Health Law. Chapter 279 also established the Breast Cancer Research and Education Fund, to be financed through voluntary contributions from a check-off mechanism on the New York State Income Tax form (Section 97-yy of the State Finance Law). New York State subsequently began matching those donations pursuant to legislation signed by Governor George Pataki in 2000 (Laws of 2000, Chapter 550).

Chapter 279 also established a Pesticide Sales and Use Database, maintained by the New York State Department of Environmental Conservation (DEC) in conjunction with Cornell University, pursuant to Environmental Conservation Law Sections 33-1201 through 33-1207. The database contains mandated reports of pesticide applications submitted to DEC by all commercial applicators. Sales of pesticides for use in agricultural crop production are reported to entities which sell, or offer for sale, restricted-use pesticides to private applicators. Most of the information in the database is available to the public; however, the Board is responsible for considering and approving the release of confidential pesticide information for specific health-related research projects.

The Board is grateful to the many New York State residents who have contributed so generously to the Breast Cancer Research and Education Fund, and to the Governor and Legislature for the statute that provides State matching of income tax donations.

Among the Board's and its program highlights and accomplishments in 2005 and 2006 were:

- More than \$2.14 million in funds were contributed as gifts via the income tax check-off mechanism during the period covered by this biennial report. Of this amount, approximately \$1.07 million was derived from State matching. The annual total amount of the check-off funds appears to have stabilized during this report period, despite a gradual decline in the number of tax returns with gifts.
- During 2005-2006, one ex-officio member was replaced. The Commissioner of Health also approved the Board's unanimous vote to name the community-based organization demonstration grants after board member Patricia S. Brown, who lost her battle with breast cancer in 2004, and the innovative research grants after Dr. Peter T. Rowley, the second board member succumbing to a cancer-related death (2006). These two vacancies have not yet been filled.

- The Board is required to meet at least four times annually. Accordingly, eight meetings took place, four each year, including two annual public hearings.
- The Board's Subcommittee on Access to Pesticide Registry and Pesticide Application Information received two applications for confidential pesticide registry information during 2005-2006 - the first from the New York City Department of Health and Mental Hygiene, and the second from the Cornell University Department of Biological and Environmental Engineering. The Board approved both requests. The abstracts of the ensuing research projects and contact information for the researchers are found in Appendix XI.
- Fifteen articles were published during 2005-2006 in peer-reviewed journals as the result of Board-funded projects (see Section 4.1.4, Publications Based on Board Grants).
- After four years of service, the Board's executive secretary, Dr. Martin D. Sorin, assumed other duties as of October 1, 2006 and was replaced by Ms. Bonnie Brautigam. Simultaneously with that leadership transition, two additional changes were implemented. First, the Board's program was integrated into the Wadsworth Center's Office of Research, allowing the benefits of an existing administrative infrastructure. Second, the Wadsworth Center created a centralized contracts unit to assist the program in tracking and execution of contracts, amendments, and payment vouchers.
- The State Department of Motor Vehicles initiated a campaign during October 2006 to promote the Drive for the Cure license plate. The campaign coincided with the Breast Cancer Awareness Month, and Drive for the Cure was designated as the Plate of the Month, and information about the benefits of the specialty plate was incorporated into all registration renewal applications due in October. Plate applications were also distributed as part of the Friehofer's Run for Women event in Albany, New York.

The Board appreciates the opportunity to work for the citizens of New York to address the most important public health problems of breast, prostate and testicular cancer and, with the abiding support of the State's residents, anticipates continued progress and success in achieving its mandates.

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**STATE OF NEW YORK
DEPARTMENT OF HEALTH
HEALTH RESEARCH SCIENCE BOARD
BIENNIAL REPORT
2005-2006**

I. INTRODUCTION

The Health Research Science Board of the New York State Department of Health was established pursuant to the Laws of 1996, Chapter 279 (amended the following year by the Laws of 1997, Chapter 219). The legislation is codified in Title 1-B, Article 24 (Sections 2410-2413) of the Public Health Law. Chapter 279 also established the Breast Cancer Research and Education Fund, to be financed by voluntary contributions from a check-off mechanism on the New York State Income Tax form (Section 97-yy of the State Finance Law). New York State subsequently began matching those donations pursuant to legislation signed by Governor George Pataki in 2000 (Laws of 2000, Chapter 550).

Chapter 279 also established a Pesticide Sales and Use Database, maintained by the New York State Department of Environmental Conservation (DEC) in conjunction with Cornell University, pursuant to Environmental Conservation Law Sections 33-1201 through 33-1207. The database contains required reports of pesticide applications submitted to DEC by all commercial applicators. Sales of pesticides for use in agricultural crop production are reported to the database by entities which sell, or offer for sale, restricted-use pesticides to private applicators. Most of the information in the database is available to the public; however, the Board is responsible for considering and approving release of confidential pesticide information for specific health-related research projects.

The Board's primary responsibilities include:

- **Awarding grants for research and education**

Pursuant to Section 2411(1)(e) of the Public Health Law, the Board is directed to solicit, receive, and review applications from various entities for grants to conduct research and education programs focusing on the causes, prevention, screening, treatment and cure of breast cancer.

- **Reviewing requests for access to pesticide-related data**

The Board is responsible for evaluating and granting access to confidential pesticide-related data collected and maintained by the New York State Department of Environmental Conservation, in conjunction with Cornell University, pursuant to Article 23, Title 12 of the Environmental Conservation Law. The data, collectively referred to as the Pesticide Sales and Use Database,

contains: 1) reports of pesticide applications submitted to DEC by commercial applicators and technicians; 2) reports of sales of restricted pesticides to private applicators; and 3) reports of general-use pesticide sales for use in agricultural crop production. While portions of the database are public, much of it is confidential and can only be released to those engaging in human health-related research, pursuant to the Board's approval contingent on compliance with established criteria.

This, the Board's fifth biennial report, summarizes its 2005 – 2006 activities. The Board's enabling statutes are found in Appendices I-V, and the bylaws governing the Board's activities in Appendix VI. In addition, as required by statute (Public Health Law Title 1-B, Section 2413), this biennial report includes:

1. the Board's recommendations on matters including, but not limited to, the types of data useful for breast, prostate or testicular cancer research and whether private citizen use of residential pesticides should be included in the reporting requirements;
2. a summary of research requests granted and denied;
3. an evaluation by the Commissioners of Health and of the Department of Environmental Conservation, and the Board of the basis, efficiency and scientific utility of the information derived from pesticide reporting pursuant to Sections 33-1205 and 33-1207 of the Environmental Conservation Law; and recommendation whether such information system should be modified or continued; and
4. a summary of comments and recommendations presented by the public at the Board's public hearings.

II. HEALTH RESEARCH SCIENCE BOARD ORGANIZATION

The Board's membership includes eleven doctoral-level scientists and physicians appointed by the Governor and the Legislature, three non-voting ex-officio members representing the Department of Health, the Department of Environmental Conservation (DEC), and Cornell University's Institute for Comparative and Environmental Toxicology (Public Health Law Section 2410). The Governor's designee serves as Board Chair. The Board is mandated to appoint a breast cancer survivor and a prostate or testicular cancer survivor as non-voting, ex-officio members. Member terms are three years in length, with reappointment permitted. Board service may continue beyond the prescribed term until the member is replaced. This process has ensured the stability and continuity of the Board during the past several years, whereas member and staff turnover could have impaired its program. To honor the exemplary service of two board members who recently lost their lives to cancer-related illness, the innovative research and community-based demonstration grant Requests for Applications were named after Drs. Peter T. Rowley and Patricia S. Brown, respectively. These two positions have not been filled, and the number of voting members remains at nine of 11. The current roster and brief member biographies are presented below, followed by the names and affiliations of members whose terms came to an end during this reporting period.

The Department of Health provides administrative and staff support to the Board through its Wadsworth Center and the Center for Environmental Health. The Board's executive secretary, Dr. Martin D. Sorin, served the Board from 2002 through October 1, 2006 when he was asked to serve the Center Director as special advisor on national and state funding trends. At that time, Ms. Bonnie Jo Brautigam replaced him as executive secretary to the Board. Dr. Nancy Kim of the Center for Environmental Health continues to provide significant staff support to the Board and its Pesticide Committee. Legal counsel is provided to the Board by Mr. David Quist, Esq., from the Division of Legal Affairs.

2.1 Voting Members (as of December 31, 2006)

SANTO M. DIFINO, M.D., Chair

Dr. DiFino is a clinician with Hematology-Oncology Associates of Central New York, P.C.; Chief of Internal Medicine, St. Joseph's Hospital Health Center; and Associate Clinical Professor, Department of Medicine, SUNY Upstate Medical Center, Syracuse, New York. He earned a B.S. degree in Biology, *magna cum laude*, from Fordham University. Dr. DiFino was elected to Phi Beta Kappa and obtained his medical degree in 1974 from the New Jersey Medical School. Dr. DiFino interned and completed a residency in medicine at Upstate Medical Center, Syracuse. He is board certified in internal medicine, medical oncology, and hematology.

Since 1992, Dr. DiFino has been a principal investigator/associate investigator with the Community Clinical Oncology Program; he also is a member of Cancer and Leukemia Group B. Dr. DiFino is president of the Central New York Chapter of the Leukemia Society of America and was recipient of the Leukemia Society's "Man of the Half Century" Award. As a result of his active involvement in community service, he was nominated for Health Citizen of the Year and is a recipient of the President's Medallion from Catholic Charities of Syracuse. Dr. DiFino is chair of the Board's Funding and Outreach Committee.

Dr. DiFino has served the Board as a gubernatorial appointee since April 1997.

CHRISTINE B. AMBROSONE, Ph.D.

Dr. Ambrosone is associate professor and chair of the Department of Epidemiology at Roswell Park Cancer Institute (RPCI) in Buffalo, New York. Prior to coming to RPCI, Dr. Ambrosone was director of the Derald H. Ruttenberg Cancer Center at Mount Sinai School of Medicine in New York City.

From 1998 to 2003, she was associate editor of the journal *Cancer Epidemiology, Biomarkers and Prevention*. She has been a peer reviewer for two dozen, mostly cancer, journals including *Breast Cancer Research*, and *Breast Cancer Research and Treatment*. Dr. Ambrosone also has extensive experience as a grant review committee member in breast, ovarian, and prostate cancer competitions. She has been principal investigator or co-principal investigator of 15 funded studies, many of them supported by NIH. She is the author or co-author of more than 50 published articles and book chapters, and is a sought-after lecturer. Dr. Ambrosone graduated with a bachelor's degree from SUNY Buffalo, *summa cum laude*, and was elected to Phi Beta

Kappa. She received her master's and doctor of philosophy degrees from RPCI and SUNY Buffalo.

Dr. Ambrosone has served the Board as a gubernatorial appointee since July 2004.

RUSSELL HILF, Ph.D.

Dr. Hilf is professor of biochemistry and oncology at the University of Rochester School of Medicine and Dentistry. He earned a B.S. in chemistry from the City College of New York in 1952, and the M.S. and Ph.D. in biochemistry from Rutgers University. After serving in the US Army and briefly at the QM Food & Container Institute, he held the position of head of cancer endocrinology at the Squibb Institute for Medical Research for 11 years prior to joining the faculty at the University of Rochester School of Medicine and Dentistry in 1969.

Dr. Hilf's primary research interests are in the field of hormone action, with emphasis on estrogen and anti-estrogen mechanisms, and on insulin and IGF-1, as they pertain to breast cancer. A second area of research deals with photodynamic therapy of neoplasms. He has published more than 200 peer-reviewed papers in professional journals and has written 40 invited book-chapters. He is a member of the American Association for Cancer Research, American Society for Biochemistry and Molecular Biology, The Endocrine Society, and the American Society for Photobiology. He has served as associate editor for *Cancer Research* for 20 years, was on the advisory board of *Biochemical Pharmacology*, and is currently a member of the editorial boards of *Oncology Research* and *Cancer Biochemistry Biophysics*. He was elected a fellow in the American Association for the Advancement of Science in 1966, has received the University of Rochester Alumni Award for Graduate Education in 1992, was a Wellcome Visiting Professor in 1994, and received the Davey Memorial Cancer Research Award, University of Rochester Cancer Center, in 1998.

Dr. Hilf has served on: the National Cancer Institute (NCI) Breast Cancer Task Force; the Veteran's Administration Merit Review Board of Oncology; the NCI Cancer Education Committee; the American Cancer Society's Biochemistry and Chemical Carcinogenesis Committee, and was chair of its Biochemistry and Endocrinology Committee. He has served three cycles on the U.S. Army Breast Cancer Review Program; and two terms on the NIH Reproductive Endocrinology Study Section, the last two years as Chairman. He currently serves as a member of a scientific review panel for The American Institute for Cancer Research, as a consultant to a program project at Roswell Park Cancer Institute and is on the Scientific Advisory Board for the University of Wisconsin Comprehensive Cancer Center.

Dr. Hilf has served the Board as a gubernatorial appointee since April 1997.

PHILIP J. LANDRIGAN, M.D., M.Sc.

Dr. Landrigan is the Ethel H. Wise Professor, chair of the Department of Community and Preventive Medicine, and Director of Environmental and Occupational Medicine at the Mount Sinai School of Medicine in New York City. He holds a Professorship in Pediatrics at Mount Sinai, and he directs the Mount Sinai Center for Children's Health and the Environment.

Dr. Landrigan obtained his medical degree from Harvard Medical School in 1967. He interned at Cleveland Metropolitan General Hospital and completed a residency in pediatrics at the Children's Hospital Medical Center in Boston, then obtained a master of science degree in occupational medicine and a diploma of industrial health from the University of London. He is board certified in preventive medicine, pediatrics, and occupational/environmental medicine.

From 1970 to 1985, he served as a commissioned officer in the U.S. Public Health Service; and served as an epidemic intelligence service officer and then as a medical epidemiologist with the Centers for Disease Control and Prevention (CDC), where he participated in epidemiologic studies of measles and rubella; directed research and development activities for the Smallpox Eradication Program; and established and directed the Environmental Hazards Branch of the Bureau of Epidemiology. Dr. Landrigan also served for a year as a field epidemiologist in El Salvador and for another year in northern Nigeria. From 1979 to 1985, as director of the Division of Surveillance, Hazard Evaluations and Field Studies of the National Institute for Occupational Safety and Health, he directed the national program in occupational epidemiology.

Dr. Landrigan was the co-founder, and then medical co-director, of the Beacon Hill Community Clinic, a free-standing medical center established in partnership with community residents in Decatur, Georgia. He is a member of the Institute of Medicine of the National Academy of Sciences. He is editor-in-chief of the *American Journal of Industrial Medicine* and previously was editor of *Environmental Research*. He has chaired committees at the National Academy of Sciences on Environmental Neurotoxicology, and Pesticides in the Diets of Infants and Children. He is chair of the Asbestos Advisory Board of the State of New York. In New York City, he served on the Mayor's Advisory Committee to Prevent Childhood Lead Paint Poisoning, New York City Department of Health. He is chair of the New York State Advisory Council on Lead Poisoning Prevention. From 1995 to 1997 he served on the Presidential Advisory Committee on Gulf War Veterans' Illnesses. In 1997 and 1998, he served as Senior Advisor on Children's Health to the Administrator of the U.S. Environment Protection Agency (EPA) where he was responsible for helping to establish a new Office of Children's Health Protection.

Dr. Landrigan has served the Board as a Senate Minority Leader appointee since July 1997.

THOMAS J. LESTER, M.D.

Dr. Lester practices internal medicine, hematology and oncology in Katonah, New York. He graduated with a B.S. degree, *summa cum laude*, from Washington and Jefferson College in 1975, where he was elected to Phi Beta Kappa; and Rutgers Medical School with AOA honors in 1979. Dr. Lester received his medical training in internal medicine and hematology at the Mt. Sinai Hospital in New York City, and in medical oncology at Memorial Sloan-Kettering Cancer Center.

Dr. Lester has been in private practice in the Katonah Medical Group, P.C. since 1986, where he serves on the executive committee, and has attending staff privileges at Northern Westchester Hospital Center in Mt. Kisco, where he is a member of the board of trustees.

Dr. Lester has served the Board as a Senate Majority Leader appointee since July 1997.

ARUN PURANIK, M.D.

Dr. Puranik is director of radiation oncology, and co-chair of the prostate brachytherapy program, Capital District Radiation Oncology, P.C., Cancer Treatment Center, Samaritan Hospital, Troy, New York. Dr. Puranik obtained a B.S. degree from Holkar Science College, Indore, India, and an M.B.B.S. and a medical degree in radiotherapy from M.G.M. Medical College, Indore. Dr. Puranik's postgraduate training included an internship in General Medicine at M.R. Hospital, followed by appointment to resident and clinical demonstrator in the Department of Radiotherapy, M.G.M. Medical College. He served as a consultant radiation therapist at the N.P. Cancer Institute, Rajkot, India, and at Nanavati Hospital and Medical Research Center, Bombay.

Dr. Puranik completed a residency in the Department of Radiology, Radiation Oncology Division, SUNY Upstate Medical Center, Syracuse, New York, for which he was awarded a Fellowship in Radiation Oncology from the American Cancer Society. He was also a fellow in the Department of Radiation Oncology, Albany Regional Radiation Oncology Program and Albany Medical College, Albany. Prior to joining the Samaritan Hospital Cancer Treatment Center he was an assistant professor, Department of Radiation Oncology; and chief at the Albany Area Radiation Therapy Center, Albany Medical College. Dr. Puranik is board certified in radiology and therapeutic radiology, and in 1997 was awarded the "Physician of the Year" award by the Capital District chapter of the American Cancer Society.

Dr. Puranik has served the Board as an Assembly minority leader appointee since July 1998.

ELINOR SPRING-MILLS, Ph.D.

Dr. Spring-Mills is a SUNY Distinguished Teaching Professor, and professor of cell and developmental biology, and of urology at SUNY Upstate Medical University, Syracuse, New York. She holds an A.B. degree in physiology from Vassar College, an M.A. in physiology from Mount Holyoke College and a Ph.D. in medical sciences (anatomy, biochemistry, and pathology) from Harvard Medical School. She completed a postdoctoral fellowship at the NIH Division of Arthritis, Metabolic and Digestive Diseases and then moved to San Francisco, where for seven years, she was the assistant chief of cell biology at the Veteran's Administration Hospital, assistant and, subsequently, associate professor of Anatomy at the University of California at San Francisco Medical School.

She has served as a member and chairperson of the Breast Cancer Working Group/Breast Cancer Task Force of the NCI; a founding member of the first Pan American Congress of Andrology; a member of the Educational Policies Committee, American Association of Anatomists; and interim chair of the Department of Anatomy at Upstate Medical School. In addition to research papers and abstracts, she has co-edited three books on the accessory glands of the male reproductive tract and human prostatic cancer.

Dr. Spring-Mills has served the Board as a gubernatorial appointee since May 2006.

JEAN WACTAWSKI-WENDE, Ph.D.

Dr. Wactawski-Wende is research associate professor in the Department of Social and Preventive Medicine in the School of Public Health and Health Professions at the SUNY University at Buffalo. She is an epidemiologist, and her research interests include women's health issues including osteoporosis, cancer and menopause. Among her publications are several funded by NIH Women's Health Initiative. Dr. Wactawski-Wende received her doctorate in Epidemiology from the SUNY University at Buffalo.

Dr. Wactawski-Wende has served the Board as a Senate Majority Leader appointee since July 2002.

MARC WILKENFELD, M.D.

Dr. Wilkenfeld is a board certified occupational/environmental physician in New York City. He is assistant professor in clinical medicine at Columbia University Medical Center, where he also acts as occupational medicine consultant to the Department of Environmental Health and Safety. He has lectured and trained internal medicine and family practice physicians on aspects of occupational/environmental medicine. Dr. Wilkenfeld is an attending physician at New York Presbyterian Hospital and Beth Israel Medical Center. He has served as occupational medicine consultant to corporations, government agencies and other organizations in the U.S. and Europe. He is past-president of the New York Occupational Medicine Association, and has lectured extensively in the field of occupational and environmental medicine.

Following the attacks of September 11, Dr. Wilkenfeld served as consultant to a number of government agencies, corporations and community groups on the environmental health impact of the disaster. In this role, he reviewed pre- and post-clean-up data and addressed questions regarding potential health effects of contamination with World Trade Center dust. He moderated and participated in community forums designed to answer the health questions of residents and workers. He has also evaluated cases of illness related to the disaster. Dr. Wilkenfeld serves as medical advisor to New York City Councilmember Alan Gerson, whose district includes Lower Manhattan. In this role, he continues to assist the Lower Manhattan Community with questions related to the health impact of September 11.

Dr. Wilkenfeld has served the Board as an Assembly Speaker appointee since September 2004.

2.2 *Ex-Officio Members*

GERALDINE BARISH

Ms. Barish is a three-time breast cancer survivor and president of 1 in 9, the Long Island Breast Cancer Coalition. She lost her oldest son to Hodgkins' disease. A survivor-activist, she has spearheaded a spectrum of activities designed to expand scientific knowledge about the causes of breast cancer, especially the role of environmental factors in cancer etiology. Her efforts have helped secure national funding for the Long Island Breast Cancer Study Project as well as

enactment of State legislation creating the Pesticide Sales and Use Database, and the New York State Health Research Science Board.

Ms. Barish is executive director of Hewlett House, which provides support services to cancer victims, their families and friends. Nationally recognized for her leadership in the battle against breast cancer, she is the recipient of numerous national and State awards, including the National Organization of Women's "Women of the Year" award and the first New York State "Innovation in Breast Cancer Early Detection and Research" award. She is a member of the National Breast Cancer Coalition's Board of Directors, the New York State Breast and Cervical Cancer Advisory Council, Environmental Advocates, Nassau County Integrated Pest Management Advisory Board, and Nassau County Breast and Cervical Cancer Board. She is chair of the Nassau County Citizen's Advisory Cancer Task Force.

Ms. Barish has served the Board since January 1998.

ALEXANDER P. GROSS, M.S., P.E.

Mr. Gross is a prostate cancer survivor who underwent radiation therapy in 1993 and subsequent combined hormone blockage therapy. He is an active member of Man-to-Man Awareness and Support Group in Syracuse, New York, serving as editor of its newsletter, with a circulation of more than 2,600. He is currently a member of the New York State Department of Health Prostate and Testicular Cancer Detection and Education Advisory Council.

Mr. Gross is a retired engineering project manager in the former Aerospace Division of the General Electric company. He received a B.M.E. degree from Stevens Institute of Technology and an M.S. degree from Syracuse University. He is a licensed New York State professional engineer.

Mr. Gross has served the Board since March 2001.

CARL JOHNSON

Mr. Johnson is Deputy Commissioner for Air and Waste Management of the New York State Department of Environmental Conservation (DEC), overseeing the regulatory and enforcement activities of the Divisions of Air Resources, Environmental Remediation, and Solid and Hazardous Materials. As such, he has responsibility for the Pesticide Reporting Law, as well as all other pesticide regulations. His responsibilities include air quality planning and regulation, oversight of solid and hazardous waste facilities, and cleanup of contaminated sites throughout the State. He also established the Governor's Acid Rain Initiative, the closure of the Fresh Kills Landfill, and is now responsible for implementation of the State's new Brownfield Cleanup Program. He represents DEC and the State on a number of regional and national organizations, as well as working with other State agencies. Prior to his 1997 appointment, Mr. Johnson was the regional director, Region 4, DEC.

From 1990-1994, he served as a legislative assistant with the New York State Senate Environmental Conservation Committee, Senator Owen H. Johnson, chairman, and was a New

York State Senate Fellow in 1989-90. Mr. Johnson holds an M.P.A. from the Maxwell School of Citizenship and Public Affairs, Syracuse University; and a B.A. in newspaper journalism from the Newhouse School of Public Communications, Syracuse University.

Mr. Johnson has served the Board as the DEC Commissioner's designee since its inception.

LAURENCE S. KAMINSKY, Ph.D.

Dr. Kaminsky is director of the Wadsworth Center's Office of Environmental Research Development. Wadsworth is the public health laboratory and research institute of the New York State Department of Health. He is also professor and chairman of the Department of Environmental Health Sciences at the University at Albany School of Public Health. Dr. Kaminsky received his Ph.D. from the University of Cape Town, South Africa, and his post-doctoral training at Yale University. He began his research career at the University of Cape Town Medical School. After a sabbatical year at the SUNY University at Albany, he joined the then-Division of Laboratories and Research of the New York State Department of Health as a research scientist; and later became chief of the Laboratory of Human Toxicology and Molecular Epidemiology and deputy director of Wadsworth's Division of Environmental Disease Prevention.

Dr. Kaminsky's research has focused on the drug metabolism enzymes - their regulation, function, polymorphisms and structures. These studies have resulted in approximately 200 papers in peer-reviewed journals and numerous invitations to lecture at international meetings. He is associate editor of two journals in this field, and currently serves as chair of the Drug Metabolism Division of the American Society of Pharmacology and Experimental Therapeutics, and on the executive committee of the International Society for the Study of Xenobiotics.

Dr. Kaminsky was appointed as the Commissioner of Health designee to the Board in October 2006.

ALEXANDER YU NIKITIN, M.D., Ph.D.

Dr. Nikitin is assistant professor of pathology in the Department of Biomedical Sciences at Cornell University. He received his M.D. degree in internal medicine from the Pavlov First Medical Institute, St. Petersburg, Russia in 1983, and his Ph.D. in pathology from the Petrov Research Institute of Oncology, St. Petersburg in 1988. Dr. Nikitin is a human pathologist by training. Prior to joining the Cornell faculty in 2000, he worked in cellular and molecular biology as a postdoctoral fellow and junior faculty at the Institute of Cell Biology, Tumor Research, Essen Medical School, in Germany; and the Department of Molecular Medicine, University of Texas Health Science Center, San Antonio, Texas. His research has been supported by grants from the NIH and the U.S. Department of Defense.

Dr. Nikitin is a recipient of the National Center for Research Resources Midcareer Award in Mouse Pathobiology and vice chair of the Pathology and Laboratory Medicine Standing Committee of the Mouse Models of Human Cancer Consortium (NCI, NIH). He is co-organizer

of the Annual Practical Workshop Series on the Pathology of Mouse Models for Human Disease held at the Jackson Laboratory, and Cornell and Purdue Universities.

His main research interests include modeling of human cancer in genetically modified mice and studying early stages of carcinogenesis and metastasis in neoplasias of reproductive and endocrine systems. These studies have led to establishment of novel models of epithelial ovarian cancer and multiple endocrine neoplasia, and will allow for rational design and testing of tumor cell targeting based on functional identification of molecular and cellular markers of carcinogenesis.

Dr. Nikitin has served the Board since August 2003.

2.3 Board Appointments

ELINOR SPRING-MILLS, Ph.D., a gubernatorial nomination, was appointed to the Board on May 23, 2006.

LAURENCE S. KAMINSKY, Ph.D., was appointed as an ex-officio member to the Board on October 17, 2006.

2.4 Changes in Membership

Members whose terms ended or who resigned during this reporting period include:

PETER T. ROWLEY, M.D.

Dr. Rowley (now deceased) was professor of medicine, pediatrics, genetics, microbiology-immunology, and oncology at the University of Rochester School of Medicine. He received a B.S. degree from Harvard and a medical degree from Columbia Universities; served an internship at Cornell and a medical residency in the Harvard Medical Service at Boston City Hospital; and obtained research training at the University College, University of London, and New York University School of Medicine.

Prior to his appointment at Rochester, Dr. Rowley was a faculty member at Stanford University. He conducted laboratory research in hematopoietic stem cell development and neoplasia, including the development of antisense agents for treatment of leukemia, and telomerase inhibitors for cancer treatment. He conducted a series of investigations on the utilization and impact of genetic screening services, including neonatal and prenatal screening for hemoglobinopathies, prenatal carrier screening for cystic fibrosis, and genetic counseling and DNA testing for families affected with breast/ovarian cancer or colorectal cancer. He provided genetic diagnostic and genetic counseling services and directed a hemoglobinopathy reference laboratory. He was a member of the American Society of Human Genetics, member and chair of its Social Issues Committee and member of its Program and its Education and Information Committees. He was a founding fellow of the American College of Medical Genetics.

LAWRENCE STURMAN, M.D., Ph.D.

Dr. Sturman is director of the Wadsworth Center - the public health laboratory and research institute of the New York State Department of Health. He is also executive director of the New York State Health Research Council and professor of biomedical sciences at the SUNY University at Albany School of Public Health.

Dr. Sturman received his medical training at Northwestern University Medical School and the Hospital of the University of Pennsylvania, and earned a doctorate in virology from The Rockefeller University. He began his career in the Laboratory of Viral Diseases at the NIH. He joined the virology laboratories at the then-Division of Laboratories and Research of the New York State Department of Health as a research physician, and later became director of Division of Clinical Sciences at Wadsworth. Dr. Sturman also served as founding chair of the Department of Biomedical Sciences in the University at Albany School of Public Health.

As executive director of the New York State Health Research Council, Dr. Sturman drew attention to the failure of New York institutions to keep pace with the national competition for NIH funding in biomedical research, and for research training and technology transfer opportunities. He and his colleagues traced the decline in New York's NIH research funding to lagging growth in the number of New York researchers, and documented the NIH and medical school components of the funding. Dr. Sturman participates in several multi-institutional efforts to advance biomedical research in New York State. He has served as co-chair of the Aaron Diamond Foundation Postdoctoral Research Fellowship Selection Committee, formed to support 100 promising young scientists engaged in AIDS or drug abuse research at New York City institutions.

III. BOARD OPERATIONS

3.1 Meetings and Public Hearings

Public Health Law Section 2411(1)(h) requires the Board to meet at least four times annually, and at least one of those meetings must be a public hearing. Meeting agendas and approved minutes are available upon request from the Board's Secretary.

DATE	BUSINESS MEETING	PUBLIC HEARING	MAIN LOCATION	VIDEOCONFERENCE SITES
3/4/2005	X		Cicatelli Associates, New York City	Albany, Rochester, and Buffalo
8/30/2005	X		SUNY Upstate Medical University at Syracuse	New York City, Albany, Rochester, and Buffalo
11/4/2005	X	X	Dept. of Health, New York City Regional Office	Albany
1/20/2006	X		Dept. of Health, New York City Regional Office	Troy, Rochester, Buffalo and Syracuse
7/7/2006	X	X	University of Rochester	New York City, Troy and Buffalo
10/25/2006	X		Department of Health Albany	New York City, Rochester, Buffalo, and Syracuse

At the annual public hearing interested parties may comment on the Board's operations, the Breast Cancer Research and Education Fund, the Prostate and Testicular Cancer Research and Education Fund or the Pesticide Sales and Use Database. No members of the public have requested to speak at the hearings.

3.2 Reports to the Board

At several meetings, Board members, Department of Health staff, or invited guests gave reports to the Board, to inform Board members about issues relevant to the Board's mandates on pesticide-related issues or breast, prostate or testicular cancer. The reports' topics and presenters are listed below. Presentation materials are attached to meeting minutes and are available upon request.

March 4, 2005 Board meeting:

Patrick Roohan, director of the Bureau of Quality Management and Outcomes Research, Office of Managed Care, New York State Department of Health, "The Breast Cancer Volume/Outcomes Project: Evaluating Patient Long Term Survival after Breast Cancer Surgery."

November 4, 2005 Board meeting:

Pamela Cowin, Ph.D., NYU School of Medicine, Mentor of two Board-Sponsored Postdoctoral Fellows, "Mentoring Postdoctoral Fellows in Breast Cancer Research."

November 4, 2005 annual public hearing:

Mary Wolff, PhD, director, New York City Study on Breast Cancer and the Environment, Mt. Sinai Hospital, "Progress of Breast Cancer in the Environment."

July 7, 2006 Board meeting:

Brian Richards, PhD, Department of Biological & Environmental Engineering, and Mr. Steve Pacenka, New York Water Resources Institute, Cornell University, "Using PSUR Records for Targeting Sampling of Well Water for Pesticide Residues."

July 7, 2006 annual public hearing:

Daniel Kass, director, Office of Environmental Surveillance and Policy, New York City Department of Health and Mental Hygiene, "New York City's Use of Pesticide Sales and Reporting Data – Utilities and Opportunities."

Gary R. Morrow, PhD, MS, professor of radiation oncology and psychiatry, James P. Wilmot Cancer Center, University of Rochester Medical Center, "Cancer-Related Fatigue."

October 25, 2006 Board meeting:

Margaret O'Neil, chief, Pesticide Reporting and Certification Section, DEC, William Smith and Robert Warfield, Pesticide Sales and Use Reporting Group, Cornell University, "Updates to Pesticide Database."

Thea Hoeth, To Life, executive director and Ann Krischer, To Life, director of support services, conducted a presentation on To Life, an Albany area community-based organization

which, among other aims, provides support to families and breast cancer survivors about navigating the medical process.

IV. POWERS AND DUTIES OF THE BOARD

The Board’s operations and activities address two major responsibilities: (1) awarding grants for research and education projects financed by the Breast Cancer Research and Education Fund, [Section 2411(1)(e) of the Public Health Law, see Appendix I], and (2) advising on pesticide-related issues and oversight of the Pesticide Sales and Use Database [Sections 33-1205 and 33-1207 of the Environmental Conservation Law, see Appendix II].

4.1 Research and Education Activities

4.1.1 Breast Cancer Research and Education Fund Revenues

The Breast Cancer Research and Education Fund (State Finance Law Section 97-yy) supports grant contracts issued by the Department of Health on behalf of the Board. The Fund is financed by donations made by individuals and corporations on State income tax forms, direct gifts to the Fund, and one-half of the proceeds from sales of Drive for the Cure specialty license plates. (Tax Law, Section 209-D and Section 627; and Vehicle and Traffic Law, Section 404-q). In 2000, New York State began matching, dollar for dollar, income tax donations made to the Fund.

Deposits to the Fund since its inception in 1996 are presented below. Gifts from tax year 2005 were collected in 2006. Thus, tax year 2005 yielded 38,919 gifts in the total amount of \$541,417. With State matching monies, the total funding available for research and education projects was \$1,082,834.

Tax Year	Donations	Matching	Cumulative Revenues
1996	\$686,689	-	\$ 686,689
1997	\$524,185	-	\$1,210,874
1998	\$593,321	-	\$1,804,195
1999	\$642,794	-	\$2,446,989
2000	\$620,040	\$620,040	\$3,687,069
2001	\$592,886	\$592,886	\$4,872,841
2002	\$532,389	\$532,389	\$5,937,619
2003	\$545,629	\$545,629	\$7,028,877
2004	\$529,646	\$529,646	\$8,088,169
2005	\$541,417	\$541,417	\$9,700,649

In addition, income from Drive for the Cure specialty license plates (\$12.50 per plate) provided an additional \$50,412.50 in calendar year 2005 and \$28,617.50 in calendar year 2006.

4.1.2 Grant Awards for Breast Cancer Research and Education Projects

In keeping with its mandate, the Board solicits, receives, and reviews applications from public and private agencies and organizations and qualified research institutions for grants supported by the Breast Cancer Research and Education Fund. Research or educational programs recommended for support to the Commissioner of Health focus on the causes, prevention, screening, treatment and cure of breast cancer. A variety of investigative approaches may be funded, including, but not limited to, basic, behavioral, clinical, demographic, environmental, epidemiologic and psychosocial research. [Public Health Law Sections 2411.1(c) and (e)]. Since its first grant competition in 1998, the Board has recommended 88 research and education projects for funding and committed \$7,508,121 to support these programs.

YEAR	FUNDS COMMITTED	AWARDS
1998	\$1,400,000	18 EMPIRE (EMPowerment through Innovative Research and Education) awards 9 Postdoctoral Fellowship awards
2001	\$2,700,000	19 EMPIRE awards 8 Postdoctoral Fellowship awards
2002	\$299,998	4 Community-Based Organization Demonstration awards
2004	\$3,108,123	30 Postdoctoral Fellowship awards*
TOTAL	\$7,508,121	88 awards

4.1.3 Breast Cancer Research and Education Project Status

The 2004 Postdoctoral Fellowship awards (Appendix VII) are scheduled to be completed by December 31, 2007. However, it is anticipated that, due to late contract start-up, most will be extended until December 31, 2008.

Additional projects initiated in late 2006 to expand and advance the activities of the Board and its research and education programs include development of:

- the Patricia S. Brown Community-Based Organization Education Demonstration Projects Request for Applications, for issuance in 2007
- the Peter T. Rowley Research Program (formerly EMPIRE) Request for Applications, for issuance in 2007
- the Postdoctoral Fellowship Request for Applications, for issuance in 2008
- Board recruitment and orientation materials
- marketing and fund-raising initiatives
- contractor training
- a scientific symposium

4.1.4 Publications Based on Board Grants

Despite delays in contract start-up for the 2004 awards, resulting in insufficient time to publish results, former grantees continue to make important contributions to breast cancer research and education. During the 2005-2006 reporting period, seven of the 2001 awardees reported the following publications in the field as a result of funding from the Health Research Science Board:

C017924 Health Research Inc., Wadsworth Center, NYS Dept. of Health

Project Title: The Role of the Lysosome in Methotrexate Resistance

Schneider E, Marshall LA, Rhee MS, Hofmann L, Khodjakov A (2005) Increased Uptake of Methotrexate-polyglutamates in Two Methotrexate-resistant Cell Lines with Distinct Mechanisms of Resistance. *Biochem Pharmacol.* **71**, 203-213.

C017929 Medical & Health Research Assn of NYC

Project Title: Informal Social Networks and Breast Cancer Screening in Black Women

Chiasson, MA and Garbers S (2006) Breast Cancer Screening and Health Behaviors among African American and Caribbean Women in NYC. *J Health Care for the Poor and Underserved* **17(1)**, 37-46.

C017938 Strang Cancer Prevention Center

Project Title: Functional Assay for BRCA1

Monteiro ANA, Phelan CM, Dapic V, Tice B, Favis R, Kwan E, Barany F, Manoukian S, Radice P, van der Luijt RB, van Nessel-rooij BPM, Chenevix-Trench G, kConFab Caldes T, de la Hoya M, Lindquist S, Tavtigian S, Goldgar D, Borg A, Narod SA (2005) Classification of BRCA1 Missense Variants of Unknown Clinical Significance. *J Med. Genet.* **42**, 138-146.

C017939 Binghamton University

Project Title: Computer-Aided Classification for Breast Cancer Screening

Land W, Heine J, Embrechts M, Smith T, Choma R, Wong L (2005) New Approach to Breast Cancer CAD Using Partial Least Squares and Kernel Partial Least Squares. *SPIE Medical Imaging-image Processing Symposium* **5747**, 48-58.

Land W, Anderson F, Smith T, Fahlbusch S, Choma R, Wong L (2005) Applying Knowledge Engineering and Representation Methods to Improve Support Vector Machine and Multivariate Probabilistic Neural Network Performance. *SPIE Medical Imaging-image Processing Symposium* **5747**, 895-902.

Land W, Heine J, Anderson F, Serveski L (2006) Configuring an Evolutionary Programming/Adaptive Boosting Hybrid as a Modular AI System to Improve Three Layer MLFN Breast Cancer CAD Performance. *ASMS Press Series on Intelligent Engineering Systems Through Neural Networks.* **16**, 261-266.

Land W (2006) Comparison of Logistics Regression and Evolutionary Programming Derived Support Vector Machines and Chi Squared Derived Results for Breast Cancer Diagnosis. *ASMS Press Series on Intelligent Engineering Systems Through Neural Networks* **16**, 72.

Land W (2006) An Improved Kernel-based Adaptive Image Segmentation Process for Lung Cancer Detection of Biopsy Images. *ASMS Press Series on Intelligent Engineering Systems Through Neural Networks* **16**, 329-334.

Land W, Heine J, Anderson F, Serveski L (2006) Abstract: Using a EP/AB Hybrid for Improving Breast Cancer CAD Performance of a MLFN. *1st Annual Binghamton Biomedical Research Conference*, 45.

Land W, McKee D, Anderson F, Masters T, Lo J (2006) Abstract: Using Neural Network Intelligent Hybrid Designs to Develop Second Opinion Diagnosis of Breast Cancer. *1st Annual Binghamton Biomedical Research Conference*, 46.

Land W, McKee D, Zhukov T, Song D, Qian W (2006) Abstract: Using Adaptive Image Segmentation Process in the Classification of Lung Biopsies. *1st Annual Binghamton Biomedical Research Conference*, 47.

Land W, Tomko G, Heine J (2006) Abstract: Comparison of LR and E-derived SVMs Results for Breast Cancer Diagnosis. *1st Annual Binghamton Biomedical Research Conference*, 48.

Margolis D, Roye D, Schmidt J (2006) Abstract: Student Research Results in the Development of a New Evolutionary Strategies Mutation Process for Support Vector Machines. *1st Annual Binghamton Biomedical Research Conference*, 55.

Land W, Abraham G, Sepulveda M, Alyesh-merni E, Au-Yeung A, Kumar R, Rodda S, Thomas R (2006) Results in the Computer Aided Diagnostic Evaluation of Breast Cancer Using Support Vector Machines. *1st Annual Binghamton Biomedical Research Conference*, 2.

C017945 Columbia University

Project Title: Breast Cancer and the Family Caring Unit: Psychosocial Issues

Raveis V and Pretter S (2005) Existential Plight of Adult Daughters Following Their Mother's Breast Cancer Diagnosis. *Psycho-Oncology*, 14.

4.2 Related Federal or Not-For-Profit Breast, Prostate or Testicular Cancer Research Activities

Another of the Board's cancer-related mandates is to "... consult with the Centers for Disease Control and Prevention, the National Institutes of Health, the Federal Agency for Health Care Policy and Research, the National Academy of Sciences and other organizations or entities which may be involved in cancer research to solicit both information regarding breast, prostate,

and testicular cancer research projects that are currently being conducted and recommendations for future research projects...” [Public Health Law, Section 2411 1(c)].

As part of fulfilling this mandate the Board will invite representatives of state, not-for-profit or federal cancer research programs to discuss with its Committee on Research Needs and Education Program Effectiveness their strategies for identifying research priorities and evaluating strategic research activities. The Board will also closely monitor advances in the field and convene symposia to address those topics.

4.3 Pesticide-Related Activities

Copies of any reports or information about the Board’s pesticide-related activities may be obtained by calling the Department of Health toll-free at 1 (800) 458-1158, with the Board’s name and report/document title.

4.3.1 Pesticide Data Collection and Access

Confidential information from the Pesticide Use and Sales Data Base (also called the Pesticide Registry) collected by the State Department of Environmental Conservation (DEC) and pesticide application information maintained by private applicators are, with certain restrictions, available to scientists involved in human health-related research. Any information, including a name and address that could identify a commercial or private applicator of pesticides, including a farmer, or anyone who receives the services of a commercial applicator is considered confidential information. Researchers interested in obtaining confidential pesticide registry information or pesticide application information, should contact the Department of Health toll-free at 1 (800) 458-1158, extension 2-7820. The following researcher access documents will be sent: Request for Pesticide Registry or Pesticide Application Information; Guidelines to Restrict the Dissemination by Researchers of Confidential Pesticide Registry and Pesticide Application Information; Agreement to Maintain Confidentiality; Additional Information Concerning the Confidentiality Plan; and an information sheet that summarizes the documents in lay language.

Committee on Access to Pesticide Registry and Pesticide Application Information. The Board is also charged with reviewing requests for access to the confidential pesticide information collected pursuant to Sections 33-1203 and 33-1205 of the State Environmental Conservation Law. The Board’s by-laws designate the Committee on Access to Pesticide Registry and Pesticide Application Information as one of its standing committees. The committee is comprised of representatives from stakeholder groups with various perspectives and areas of expertise, including breast cancer advocacy, chemical pesticides, commercial pesticide application, and private pesticide application. Appendix VIII lists the committee members as of November 2006.

The committee’s charge is described in Appendix IX. In summary, the committee is responsible for reviewing requests for pesticide registry and pesticide application information for use in human health-related research projects. The committee makes recommendations to the full Board for final action. After three applications were reviewed by the committee during 2003-2004, the committee discussed changes in procedures to streamline the process. A pre-review process was instituted immediately to take place upon receipt of an application at the same time

that a committee meeting is scheduled to review the application. As part of this pre-review, Department staff and three committee members promptly assess the application to determine whether sufficient information is available for the committee to make an informed decision, or shortfalls in the application must be addressed by the applicant before the committee can review.

In the latter case, deficiencies are communicated to the applicant, and resulting responses are incorporated into the application package considered at the committee meeting. This pre-review has been incorporated into the summary of procedures for reviewing applications (see Appendix X). The entire review process requires four to six months.

Applications for Confidential Pesticide Registry Information Received During 2005-2006. The Board considered two applications for confidential pesticide registry information during 2005-2006. The abstracts of these research projects and contact information for the researchers are found in Appendix XI:

- “Association Between Commercial Application of Pesticides in Residential Areas and Birth Outcomes in New York City”, from Wendy McKelvey, Ph.D., of the New York City Department of Health and Mental Hygiene. The Board approved the request, and at this writing the confidentiality agreements had been executed, and preparations were underway for releasing the data.
- “Surveying Upstate New York Well Water for Pesticide Contamination (Cayuga and Orange Counties)”, from Tammo Steenhuis, Ph.D., of the Cornell University Department of Biological and Environmental Engineering. At this writing, the request was scheduled to be considered at the next Board meeting.

4.3.2 Evaluation of the Basis, Efficiency and Scientific Utility of the Information Derived from Pesticide Reporting

The biennial report submitted to the Legislature by the Board must include, “an evaluation ... of the basis, efficiency and scientific utility of the information derived from pesticide reporting”, and recommendations as to “whether such system should be modified or continued.” The Board is also instructed to consider “...whether private citizen use of residential pesticides should be added to the reporting requirements” (Public Health Law Section 2413).

For previous reports, the Board surveyed interested parties, including environmental groups, breast cancer advocacy groups, government agencies, academic departments, and business and trade groups. One survey was conducted in 2000, and the other in 2002-2003. For the current report, the Board requested presentations from Dr. Tammo Steenhuis of Cornell University (head of a research group that has been using confidential pesticide data) and Daniel Kass of the New York City Department of Health and Mental Hygiene. Mr. Kass is head of that Department’s environmental public health tracking program, which is using the publicly available pesticide data as part of its surveillance program and has applied for confidential pesticide data. Both groups of researchers identified modifications to the system that would enhance the utility of the data.

Dr. Steenhuis and his co-investigators from the Cornell University Department of Biological and Environmental Engineering have applied for and received confidential pesticide data for two studies, “Surveying Upstate New York Well Water for Pesticide Contamination (Cortland County)”, and “Surveying Upstate New York Well Water for Pesticide Contamination (Schenectady County).” Drs. Brian Richards and Ian Toevs, and Mr. Steve Pacenka from this group gave a presentation to the Board on July 7, 2006, “Using PSUR Records for Targeting Sampling of Well Water for Pesticide Residues.” The researchers demonstrated how combining the pesticide sales and use data with information on aquifers, land use and density of populations dependent on groundwater yielded State maps for the identification of areas for sampling. The researchers also described the progress of the studies in Cortland and Schenectady Counties. Because the pesticide use data for Cortland County were not received before it was necessary to select and sample wells, the data were used post hoc to test correlations between pesticide applications and well test sampling results. The Cornell researchers recommended that the length of time between applying for the confidential data and receipt of the data be shortened.

Mr. Daniel Kass gave a presentation to the Board on July 7, 2006, “NYS Pesticide Sales and Use Data: User Experience from the New York City Department of Health and Mental Hygiene.” Mr. Kass described how the pesticide data is allowing observation of trends in pesticide use in New York City, compare use in New York City to other urban counties in the State, generating hypotheses about predictors of pesticide use with infestation, sociodemographic, and housing data at the ZIP code level, evaluating use of locally prohibited products, and providing analytic support to the public and reporting on geographic patterns of product use. He also outlined some of his group’s concerns about the data and how they could affect their use in application to epidemiologic studies. Mr. Kass also recommended modifications to the system for improving the value of the data.

Other recommendations on approaches to improve the utility of the database were made by Dr. Thomas Wainman of this Department, who reviewed data from the pesticide database for the environmental exposure evaluation component of the Coram, Mt. Sinai, Port Jefferson Station Follow-Up Investigation. Dr. Wainman suggested additional quality control measures and steps to improve the efficiency and effectiveness of the data.

The Board considered the suggestions of the Cornell researchers, the City Department of Health and Mental Hygiene, and this Department and made the following recommendations. Comments from DEC and this Department are included after certain recommendations.

4.3.3 Board Reports on Pesticide-Related Topics and on Studies Using or Referring to the Pesticide Sales and Use Database

The Board has released the following reports on pesticide-related topics since its inception. The Legislative mandates for the reports are noted in parentheses:

- Data Sets Collected and Maintained by New York State Government that May Assist Researchers Engaged in Breast, Prostate or Testicular Cancer Research, January 1999 [Public Health Law Section 2412(a) and (b)]
- Pesticide Use and Pesticide Exposure, May 1999 [Public Health Law §2411(1)(f)]

- Reference List: Pesticide Use and Pesticide Exposure, May 1999 [Public Health Law §2411(1)(f)]
- Comparison of Pesticide Reporting and Pesticide Use, February 2000 [Public Health Law §2411(1)(g)]
- Survey Results and Recommendations – Pesticide Reporting Law, February 2001 [Public Health Law §2413]
- Reference List: Pesticide Use and Pesticide Exposure, September 2002 [Public Health Law §2411(1)(f)]
- Results of the 2002-2003 Survey on Pesticide Reporting and Board Recommendations, March 2005 [Public Health Law §2413]

The Board recommended in 2004 that each biennial report should include references to studies that have been stimulated or influenced by the pesticide database. Appendix XIV contains a list of reports and research articles, including results from Dr. Steenhuis at Cornell University of the first year's study of well water in upstate New York for pesticide contamination, as well as research articles referring to the Pesticide Sales and Use Database.

Appendix XII consists of a list of the Board's recommendations on pesticide reporting based on surveys of interested parties in 2000 and 2002-2003. Summaries of progress achieved as a result are also included.

At the October 2006 meeting, the Board heard presentations from Ms. Margaret O'Neil, Chief of DEC's Pesticide Reporting and Certification Section, on DEC's review of incoming pesticide sales and use reports and resulting enforcement activities, and from Mr. William Smith and Mr. Robert Warfield of Cornell University on data validation procedures and audit reporting. Both groups of presenters highlighted recent changes in their procedures. Copies of these slide presentations appear in Appendix XIII.

V. PUBLIC COMMENTS FROM OTHER MEETINGS

A segment of each Board meeting is set aside for public comment. Synopses of comments from 2005-2006 Board meetings are presented below:

August 30, 2005 Board meeting:

- Ms. Joan Sheehan, Capital Region Action Against Breast Cancer, asked when information would be available to the public on projects approved by the Board. She was advised that, once the contracts were approved, in a few months, the information would be made public. Ms. Sheehan asked if the breast cancer consumer reviewers were from New York State. The Board responded that no member of either review panel committee was from the State, to avert possible conflicts of interest.
- Ms. Elizabeth Watt, New York State Breast Cancer Support and Education asked whether information on Board-approved projects would be placed on a Website. She was advised

that the information would be posted on the Extramural Funding Website, reachable from the Department of Health Website.

VI. PROGRAM ISSUES

6.1 Changes to Staffing and Program Structure

The enabling legislation requires that the Department of Health provide staffing for the program. During 2005, staffing levels were stable. In January 2006, the Associate Accountant, Ms. Nowakowski, accepted another job, and the position could not be filled until October 2006. In the interim, the administrative aide and the health program administrator assumed much of the responsibility for contract management duties in addition to their existing work. Lack of expertise in contract management and lack of time to devote to these new tasks created a backlog of work throughout the year.

In October 2006, the program's director, Dr. Martin Sorin, was asked to serve the director of the Wadsworth Center as a special assistant on State and national funding trends. Ms. Bonnie Brautigam assumed the role of program director - moving the programs and administration of the Health Research Science Board under the jurisdiction of Wadsworth's Office of Research, to allow closer integration of the program with the Center, and provide additional expertise and administrative support to the program. Simultaneously, Wadsworth created a centralized Contracts Unit designed to take on the time-consuming tracking functions related to contract execution and voucher processing. The administrative aide joined the other staff of the Contracts Unit to ensure continuity.

6.2 Board Meeting Coordination

Program and Office of Research staff spend a significant amount of time arranging board meetings with multiple videoconferencing sites. They are often challenged to rearrange the meetings on short notice due to unanticipated conflicts that interfere with the ability to obtain a quorum for the meetings. The unintended consequence is often a significant delay in conducting the business of the board, incurring meeting expenses for a meeting in which a quorum is not present, and reducing the amount of staff time for program management and development.

6.3 Anticipated Changes

While there is no funding to support staff and administration of the program, it is anticipated that realignment of the program within the Center will lead to the development of formal contractor monitoring and evaluation processes, coordination of a scientific symposium, additional support for the external peer-review processes, and other program enhancements.

VII. RECOMMENDATIONS

7.1 *Pesticide recommendations not requiring a change in legislation*

7.1.1 **Include the quantity and name of the active ingredient in each application record and summarize data in terms of such active ingredient as well as the product**

Comment: Others have made this same recommendation in previous years. Significant progress has been made in expressing data in both pounds of product and pounds of active ingredient. This requires knowing the density of every product registered in New York State. DEC has altered its internal processes to capture this information as products are registered. It has taken several years to capture most of the densities for the 14,000 registered products. Cornell is developing a Website to summarize the active ingredient data. The software itself is almost completed, and Cornell is verifying the density and product formulation data.

7.1.2 **Incorporate checks on the following into the quality assurance and quality control procedures:**

- a. very similar amounts of a product reported for multiple ZIP codes
- b. liquid products reported as pounds and solid products reported as gallons
- c. quantities reported at the county- and ZIP code-levels that differ by more than an order of magnitude
- d. outliers

Comment: Cornell has begun using a statistical package to assist in validating the pesticide reporting data.

- a. This is one of the many checks that will be investigated for any utility in improving the quality of the data.
- b. This validation has been implemented starting with the 2005 reporting year data. In addition, Cornell has determined that a large percentage of products reported with dry ounce units are actually liquid formulation products. Cornell is in the process of correcting the units of these products for the 2004 and 2005 reporting year and will continue to do so for future reporting years.
- c. Using a statistical package will enable Cornell to do this check.

7.1.3 **Explore the possibility of making available an application line-item dataset with no confidential information for counties and ZIP codes**

Comment: DEC and Cornell will make this available starting with the 2005 reporting year. Each application record will contain fields for both county and ZIP code. Any private ZIP code will be masked using the same approach as in the annual report.

7.1.4 Explore the possibility of adding the number of applications to county and ZIP code data

Comment: DEC and Cornell will add the number of applications to the state, county, and ZIP code data sets available on the Website for downloading. If the number of applications for a county is fewer than or equal to 5, it will be reported in a “<=5” category.

7.1.5 Explore ways to include fields from the Pesticide Product Ingredient and Manufacturer System (PIMS) for product name, use, type, formulation, and registration status or to include the ability to link to PIMS or the Pesticide Product Information System through the U.S. Environmental Protection Agency (EPA)’s registration number.

Comment: The new active ingredient Website (see response to item 1) links to PIMS via the active ingredient code. It also links to the chemical information stored on the site for the active ingredient. In the future, DEC and Cornell plan to incorporate the product-based data into this Website, and will provide a PIMS link by EPA registration number at that time.

7.1.6 Explore ways to decrease the time lapse from a researcher’s request for confidential data to data receipt

Comment: The Pesticide Committee has modified its process to make reviewing applications more efficient. Upon receiving an application, committee members are contacted to determine the next possible meeting date, which may be four to six weeks from application receipt. To use the period before the meeting productively, a pre-review process was developed, under which the application is reviewed by Department staff and then by three members of the committee to determine whether the application contains sufficient information to make a decision. If more information is needed, the applicants are asked to provide it before the scheduled meeting date. Details of the process can be found in Section 4.3.1 of this report and in Appendix X. In addition, Department staff have worked to decrease the time required for finalizing the committee’s recommendations and report to the Board, and to generating signed confidentiality agreements with the applicant.

7.1.7 Increase DEC’s budget and the funds provided by contract to Cornell

7.2 *Pesticide recommendations that may require a change in legislation*

Allow local health agencies access to the confidential data for surveillance purposes

Comment: Although local health agencies do not automatically have access to the confidential data, a mechanism is in place for researchers, including local health agencies, to do so. The Board has the responsibility of determining whether a researcher should have access to the confidential data, and local health agencies can apply to the Board for the data.

One of the criteria for release is that the data must be used for human health-related research, and some surveillance may be considered research. The Centers for Disease Control and Prevention has in place guidelines for defining public health research and public health non-research, and the guidelines include examples of non-research surveillance and research surveillance.

A change in the law would be required to allow local health agencies access to the confidential data without requesting the data from the Board. In addition, some forms of surveillance may not meet the criterion of human health-related research.

7.3 *Pesticide recommendations requiring a change in legislation*

7.3.1 Mandate electronic reporting

Comment: An electronic reporting option is in place and was emphasized at workshops held throughout the State and by a direct mailing to all applicators and sellers. Due to extensive outreach efforts conducted by DEC on a case-by-case basis, we now receive more than half of pesticide reporting data in an electronic format. However, to mandate electronic reporting would require an amendment to the law by the Legislature.

7.3.2 Mandate reporting of dosage rate and target organism

Comment: Dosage rate and target organism records are required to be kept by commercial applicators for a period of three years. If researchers need that information, copies of the records may be requested from applicators. To require applicators to report the information to DEC would also require a change in the law by the Legislature.

7.3.3 Include the crop/site of the application (for those reporting) and include the crop/site for private applicator sales of general-use pesticides intended for agricultural purposes

Comment: Many report requests are specific to crop or site (e.g., the products used on turf from 2001 through 2003); at present, this information cannot be provided. Also, labels on many products registered in New York State list multiple-use sites, thus making it impossible to ascertain where a product was used.

Reported crop/site information would assist the Cornell Integrated Pest Management Program staff and other commodity researchers to obtain pesticide use information, evaluate pesticide effectiveness, and develop effective chemical and non-chemical control practices.

Crop/site information would also be valuable for estimating potential exposures to pesticides, especially if the same products are used on the same site more than once.

Again, to mandate crop/site reporting would require a statutory amendment by the Legislature.

7.3.4 Revise the requirement for the period of time commercial applicators, sellers of pesticides, and private applicators must maintain records to not under seven years.

Comment: Current legislation requires commercial and private applicators, as well as sellers of pesticides to maintain records for a period not under three years. A delay is incurred from the time the data are reported until they are released to the public, and when health researchers can apply for the confidential information and receive the actual data. Researchers needing more information could not obtain it, because the records could be destroyed after three years. To increase the record-retention time would require a change in the law by the Legislature, as noted.

7.4 *Other recommendations that may require a change in the legislation*

7.4.1 Establish a mechanism to enable the deposit of grants, gifts, or bequests into the breast cancer research and education fund.

7.4.2 Appoint advocates to the board as voting members

Comment: The New York State Coalition of Advocacy Groups has proposed legislation to name voting advocates to the Board. The Board supports the addition of advocates to voting positions on the Board, while continuing to strengthen its research and education mission.

APPENDIX I
PUBLIC HEALTH LAW
TITLE 1-B
HEALTH RESEARCH SCIENCE BOARD

Section 2410. Health Research Science Board.

Section 2411. Powers and duties of the Board.

Section 2412. Agency implementation.

Section 2413. Biennial report

§ 2410. Health Research Science Board

1. There is hereby established in the department of the Health Research Science Board. The Board shall be a body of eleven scientists each of whom shall have either an M.D., D.O., Ph.D., or Dr.P.H. in one of the following fields: biochemistry, biology, biostatistics, chemistry, epidemiology, genetics, immunology, medicine, microbiology, molecular biology, nutrition, oncology, reproductive endocrinology, or toxicology and must currently be engaged in treating patients or conducting health research. The members shall be appointed in the following manner: two shall be appointed by the temporary president of the senate and one by the minority leader of the senate; two shall be appointed by the speaker of the assembly and one by the minority leader of the assembly; five shall be appointed by the governor. In addition, the governor shall appoint three non-voting ex officio members to the Board, one of whom shall be the commissioner of the department, or his or her designee, one of whom shall be the commissioner of the department of environmental conservation, or his or her designee, and one of whom shall be the director of the Cornell University Institute for Comparative and Environmental Toxicology, or his or her designee; and the Board shall appoint two non-voting ex officio members, one of whom shall be a person who has or has survived breast cancer and one of whom shall be a person who has or has survived prostate or testicular cancer. The governor shall designate the chair of the Board. The governor, temporary president of the senate, minority leader of the senate, speaker of the assembly, and minority leader of the assembly may solicit recommendations from the Centers for Disease Control and Prevention, the National Institutes of Health, the Federal Agency For Health Care Policy and Research, and the National Academy of Sciences for appointments to the Board.

2. All members shall serve for terms of three years and may be reappointed, such terms to commence July first and expire June thirtieth; provided, however, that of the eleven members first appointed, three such members, one appointed by the governor, one appointed by the temporary president of the senate and one appointed by the speaker of the assembly, shall be appointed for terms of one year, and three such members, one appointed by the governor, one appointed by the temporary president of the senate, and one appointed by the speaker of the assembly shall be appointed for a term of two years. The Board shall convene on or before September first, nineteen hundred ninety-seven.

3. Any member, after notice and an opportunity to be heard, may be removed by the governor for neglect of duty or malfeasance in office. Any member who fails to attend three consecutive meetings of the Board, unless excused by formal vote of the Board, shall be deemed to have vacated his or her position.

4. Any vacancy in the Board shall be filled for the unexpired term in the same manner as the original appointment.
5. A majority of the voting members of the Board shall constitute a quorum for the transaction of any business or the exercise of any power or function of the Board.
6. Members of the Board shall not receive compensation for their services as members, but shall be allowed their actual and necessary expenses incurred in the performance of their duties.

§ 2411. Powers and duties of the Board

1. The Board shall:

(a) Survey state agencies, boards, programs and other state governmental entities to assess what, if any, relevant data has been or is being collected which may be of use to researchers engaged in breast, prostate or testicular cancer research;

(b) Consistent with the survey conducted pursuant to paragraph (a) of this subdivision, compile a list of data collected by state agencies which may be of assistance to researchers engaged in breast, prostate or testicular cancer research as established in section twenty-four hundred twelve of this title;

(c) Consult with the Centers for Disease Control and Prevention, the National Institutes of Health, the Federal Agency For Health Care Policy and Research, the National Academy of Sciences and other organizations or entities which may be involved in cancer research to solicit both information regarding breast, prostate and testicular cancer research projects that are currently being conducted and recommendations for future research projects;

(d) Review requests made to the commissioner for access to information pursuant to paragraph (b) of subdivision one of section 33-1203 and paragraph (c) of subdivision two of section 33-1205 of the environmental conservation law for use in human health related research projects. Such data shall only be provided to researchers engaged in human health related research. The request made by such researchers shall include a copy of the research proposal or the research protocol approved by their institution and copies of their institution's Institutional Review Board (IRB) or equivalent review board approval of such proposal or protocol. In the case of research conducted outside the auspices of an institution by a researcher previously published in a peer-reviewed scientific journal, the Board shall request copies of the research proposal and shall deny access to the site-specific and nine-digit zip code pesticide data if the Board determines that such proposal does not follow accepted scientific practice for the design of a research project. The Board shall establish guidelines to restrict the dissemination by researchers of the name, address or other information that would otherwise identify a commercial applicator or private applicator or any person who receives the services of a commercial applicator;

(e) Solicit, receive, and review applications from public and private agencies and organizations and qualified research institutions for grants from the breast cancer research and education fund, created pursuant to section ninety-seven-yy of the state finance law, to conduct research or educational programs which focus on the causes, prevention, screening, treatment and cure of breast cancer and may include, but are not limited to basic, behavioral, clinical, demographic, environmental, epidemiologic and psychosocial research. The Board shall make

recommendations to the commissioner, and the commissioner shall, in his or her discretion, grant approval of applications for grants from those applications recommended by the Board. The Board shall consult with the Centers for Disease Control and Prevention, the National Institutes of Health, the Federal Agency For Health Care Policy and Research, the National Academy of Sciences, breast cancer advocacy groups, and other organizations or entities which may be involved in breast cancer research to solicit both information regarding breast cancer research projects that are currently being conducted and recommendations for future research projects. As used in this section, "qualified research institution" may include academic medical institutions, state or local government agencies, public or private organizations within this state, and any other institution approved by the department, which is conducting a breast cancer research project or educational program. If a board member submits an application for a grant from the breast cancer research and education fund, he or she shall be prohibited from reviewing and making a recommendation on the application;

(f) Consider, based on evolving scientific evidence, whether a correlation exists between pesticide use and pesticide exposure. As part of such consideration the Board shall make recommendations as to methodologies which may be utilized to establish such correlation;

(g) After two years of implementation of pesticide reporting pursuant to section 33-1205 of the environmental conservation law, the Board shall compare the percentage of agricultural crop production general use pesticides being reported to the total amount of such pesticides being used in this state as estimated by Cornell University, Cornell Cooperative Extension, the department of environmental conservation, and the Environmental Protection Agency;

(h) Meet at least six times in the first year, at the request of the chair and at any other time as the chair deems necessary. The Board shall meet at least four times a year thereafter. Provided, however, that at least one such meeting a year shall be a public hearing, at which the general public may question and present information and comments to the Board with respect to the operation of the Health Research Science Board, the breast cancer research and education fund, the prostate and testicular cancer research and education fund and pesticide reporting established pursuant to sections 33-1205 and 33-1207 of the environmental conservation law. At such hearing, the commissioner of the department of environmental conservation or his or her designee shall make a report to the Board with respect to the efficiency and utility of pesticide reporting established pursuant to sections 33-1205 and 33-1207 of the environmental conservation law.

2. The commissioner shall request that the department of environmental conservation compile information pursuant to paragraph (b) of subdivision one of section 33-1203 of the environmental conservation law as necessary to fulfill board approved requests, pursuant to paragraph (d) of subdivision one of this section.

3. The commissioner shall provide the Board with such staff assistance and support services as are necessary for the Board to perform the functions required of it under this section.

§ 2412. Agency implementation

All state agencies, including, but not limited to, the departments of agriculture and markets, environmental conservation, and health, shall review their programs and operations (pursuant to guidelines established by the Board) to determine whether they currently collect data which may be of use to researchers engaged in breast, prostate or testicular cancer research. Any agency collecting such data shall forward a description of the data to the Health Research Science Board.

§ 2413. Biennial report

The commissioner shall submit a report on or before January 1st commencing in nineteen hundred ninety-nine, and biennially thereafter, to the governor, the temporary president of the senate and the speaker of the assembly concerning the operation of the Health Research Science Board. Such report shall include recommendations from the Health Research Science Board including, but not limited to, the types of data that would be useful for breast, prostate or testicular cancer researchers and whether private citizen use of residential pesticides should be added to the reporting requirements. The report shall also include a summary of research requests granted or denied. In addition, such report shall include an evaluation by the commissioner, the commissioner of the department of environmental conservation and the Health Research Science Board of the basis, efficiency and scientific utility of the information derived from pesticide reporting pursuant to sections 33-1205 and 33-1207 of the environmental conservation law and recommend whether such system should be modified or continued. The report shall include a summary of the comments and recommendations presented by the public at the Board's public hearings.

APPENDIX II

ENVIRONMENTAL CONSERVATION LAW

TITLE 7: REGISTRATION OF PESTICIDES

TITLE 12: PESTICIDE SALES AND USE DATA BASE AND RECORDKEEPING AND REPORTING

Section 33-0714. Water quality monitoring for pesticides.

Section 33-1201. Pesticide sales and use computer data base.

Section 33-1203. Access to pesticide information.

Section 33-1205. Record keeping and reporting.

Section 33-1207. Record keeping and reporting by importers and manufacturers.

§ 33-0714. Water quality monitoring for pesticides.

The department, in coordination with the United States Geological Survey, National Water Quality Assessment Program, the New York State Water Resources Institute, and other parties, shall conduct a water quality monitoring program to provide an adequate understanding of the health and environmental impacts of pesticide use in the state. The department shall utilize this program, as it deems necessary, in: making pesticide registration decisions; reviewing suspensions and cancellations of pesticide registrations in the state; and assessing the status, trends, and health impacts of any pesticide contamination of ground and surface waters on Long Island and throughout the state.

§ 33-1201. Pesticide sales and use computer data base.

1. a. The department shall develop a pesticide sales and use computer data base in conjunction with Cornell University. The data base shall be maintained at the department.

b. Such data base shall consist of all information compiled from reports submitted to the department pursuant to sections 33-1205 and 33-1207 of this title. Such reports shall be entered into and maintained on a computerized data base and shall be updated annually. Information obtained for and contained in the data base shall be accessible by interested parties only to the extent permitted pursuant to the provisions of subdivision two of this section and paragraph a of subdivision 1 of section 33-1203 of this title.

2. The commissioner shall prepare an annual report summarizing pesticide sales, quantity of pesticides used, category of applicator and region of application. The commissioner shall not provide the name, address, or any other information which would otherwise identify a commercial or private applicator, or any person who sells or offers for sale restricted use or general use pesticides to a private applicator, or any person who received the services of a commercial applicator. In accordance with article six of the public officers law, proprietary information contained within such record, including price charged per product, shall not be disclosed. The report shall be submitted to the governor, the temporary president of the senate and the speaker of the assembly, and shall be made available to all interested parties. The first report shall be submitted on July first, nineteen hundred ninety-eight and on July first annually thereafter.

§ 33-1203. Access to pesticide information.

1. a. The commissioner shall, upon written request of an interested party, in printed form or on a diskette in computerized data base format, provide the information on pesticides submitted to the department pursuant to sections 33-1205 and 33-1207 of this title. Such information shall be provided by county or counties, or five-digit zip code or codes as selected by the interested party making the written request. The commissioner shall not provide the name, address, or any other information which would otherwise identify a commercial or private applicator, or any person who sells or offers for sale restricted use or general use pesticides to a private applicator, or any person who received the services of a commercial applicator. In accordance with article six of the public officers law, proprietary information contained within such record, including price charged per product, shall not be disclosed. The provisions of this paragraph shall not apply to the provision of pesticide data to the commissioner of health, the health research science board and researchers pursuant to title one-B of article twenty-four of the public health law.

b. The department shall, upon request from the department of health, compile pesticide application information by nine-digit zip code and provide the information to the commissioner of health for researchers entitled to receive information pursuant to paragraph (d) of subdivision one of section twenty-four hundred eleven of the public health law provided, however, if the nine-digit zip code cannot be determined, the information shall be compiled by town or city.

2. The fees for copies of information shall not exceed twenty-five cents per photocopy not in excess of nine inches by fourteen inches, or the actual cost of reproducing any information.

§ 33-1205. Recordkeeping and reporting.

1. All commercial applicators shall maintain pesticide use records for each pesticide application containing the following:

- a. EPA registration number;
- b. product name;
- c. quantity of each pesticide used;
- d. date applied;
- e. location of application by address (including five-digit zip code).

Such records shall be maintained for a period of not less than three years. All commercial applicators shall file, at least annually, a report or reports containing such information with the department on computer diskette or in printed form on or before February first for the prior calendar year. All commercial applicators shall also maintain corresponding records of the dosage rates, methods of application and target organisms for each pesticide application. These records shall be maintained on an annual basis and retained for a period of not less than three years and shall be available for inspection upon request by the department.

2. a. Every person who sells or offers for sale restricted use pesticides to private applicators shall issue a record to the private applicator of each sale of a restricted use pesticide or a general use pesticide used in agricultural crop production to such applicator. Such record of each sale shall include the following:

- 1. EPA registration number;
- 2. product name of the pesticide purchased;
- 3. quantity of the pesticide purchased;
- 4. date purchased;

5. location of intended application by address (including five-digit zip code) or if address is unavailable by town or city (including five-digit zip code) if the location of intended application differs from the billing address that appears on the record.

Every person who sells or offers for sale restricted use pesticides to private applicators shall file, at least annually, a report or reports containing such information with the department on computer diskette or in printed form on or before February first for the prior calendar year. The department shall not use the reports filed pursuant to this paragraph for enforcement purposes.

b. All private applicators shall maintain, at a minimum, records of the restricted pesticides purchased, crop treated by such, method of application, and date of application or applications. This information shall be maintained on an annual basis and retained for a minimum of three years, and shall be available for inspection upon request by the department.

c. A private applicator shall, upon request, within six months, provide site-specific information relating to pesticide applications to any researcher entitled to receive information pursuant to paragraph (d) of subdivision one of section twenty-four hundred eleven of the public health law, provided, however, such request shall not be granted during planting and harvesting unless at a time and in a manner that is mutually convenient.

§ 33-1207. Recordkeeping and reporting by importers and manufacturers.

1. Each person manufacturing or compounding a registered restricted use pesticide in this state, or importing or causing a registered restricted use pesticide to be imported into this state for use, distribution, or storage, shall maintain records of all sales within the state during the preceding year of each restricted use pesticide product which he or she has imported, manufactured or compounded. The record of each restricted use pesticide product shall include:

- a. EPA registration number;
- b. container size; and
- c. number of containers sold to New York purchasers.

2. Such records shall be maintained for a period of not less than three years. All manufacturers and importers shall file an annual report containing such information with the department on computer diskette or in printed form on or before February first for the prior calendar year.

APPENDIX III

STATE FINANCE LAW

Article 6

§ 97-yy. Breast cancer research and education fund.

1. There is hereby established in the joint custody of the commissioner of taxation and finance and the comptroller, a special fund to be known as the "breast cancer research and education fund".

2. Such fund shall consist of all revenues received by the department of taxation and finance, pursuant to the provisions of section two hundred nine-D and section six hundred twenty-seven of the tax law, all moneys collected pursuant to section four hundred four-q of the vehicle and traffic law, and all other moneys appropriated, credited, or transferred thereto from any other fund or source pursuant to law. For each state fiscal year, there shall be appropriated to the fund by the state, in addition to all other moneys required to be deposited into such fund, an amount equal to the amounts of monies collected and deposited into the fund pursuant to sections two hundred nine-D and six hundred twenty-seven of the tax law and section four hundred four-q of the vehicle and traffic law during the preceding calendar year, as certified by the comptroller. Nothing contained herein shall prevent the state from receiving grants, gifts or bequests for the purposes of the fund as defined in this section and depositing them into the fund according to law.

2-a. On or before the first day of February each year, the comptroller shall certify to the governor, temporary president of the senate, speaker of the assembly, chair of the senate finance committee and chair of the assembly ways and means committee, the amount of money deposited in the breast cancer research and education fund during the preceding calendar year as the result of revenue derived pursuant to sections two hundred nine-D and six hundred twenty-seven of the tax law and section four hundred four-q of the vehicle and traffic law.

3. Monies of the fund shall be expended only for breast cancer research and educational projects. As used in this section, "breast cancer research and education projects" means scientific research or educational projects which, pursuant to section two thousand four hundred eleven of the public health law, are approved by the department of health, upon the recommendation of the health research science board.

4. Monies shall be payable from the fund on the audit and warrant of the comptroller on vouchers approved and certified by the commissioner of health.

5. To the extent practicable, the commissioner of health shall ensure that all monies received during a fiscal year are expended prior to the end of that fiscal year.

APPENDIX IV
STATE TAX LAW
Article 9-A

§ 209-D. Gift for breast cancer research and education. Effective for any tax year commencing on or after January first, nineteen hundred ninety-six, a taxpayer in any taxable year may elect to contribute to the support of the breast cancer research and education fund. Such contribution shall be in any whole dollar amount and shall not reduce the amount of the state tax owed by such taxpayer. The commissioner shall include space on the corporate income tax return to enable a taxpayer to make such contribution. Notwithstanding any other provision of law, all revenues collected pursuant to this section shall be credited to the breast cancer research and education fund and shall be used only for those purposes enumerated in section ninety-seven-yy of the state finance law.

Article 22 Part 2

§ 627. Gift for breast cancer research and education. Effective for any tax year commencing on or after January first, nineteen hundred ninety-six, an individual in any taxable year may elect to contribute to the breast cancer research and education fund. Such contribution shall be in any whole dollar amount and shall not reduce the amount of state tax owed by such individual. The commissioner shall include space on the personal income tax return to enable a taxpayer to make such contribution. Notwithstanding any other provision of law all revenues collected pursuant to this section shall be credited to the breast cancer research and education fund and used only for those purposes enumerated in section ninety-seven-yy of the state finance law.

APPENDIX V

VEHICLE AND TRAFFIC LAW

Title 4, Article 14

*** § 404-q. Distinctive "drive for the cure" license plates.**

1. Any person residing in this state shall, upon request, be issued a distinctive "drive for the cure" license plate in support of breast, prostate and testicular cancer research bearing the phrase "drive for the cure". Application for said license plate shall be filed with the commissioner in such form and detail as the commissioner shall prescribe.

2. A distinctive "drive for the cure" license plate issued pursuant to this section shall be issued in the same manner as other number plates upon the payment of the regular registration fee prescribed by section four hundred one of this article, provided, however, that an additional annual service charge of twenty-five dollars shall be charged for such plate. Twelve dollars and fifty cents from each twenty-five dollars received as annual service charges under this section shall be deposited to the credit of the breast cancer research and education fund established pursuant to section ninety-seven-yy of the state finance law and shall be used for research and education programs undertaken pursuant to section twenty-four hundred ten of the public health law. Twelve dollars and fifty cents from each twenty-five dollars received as annual service charges under this section shall be deposited to the credit of the prostate and testicular cancer research and education fund established pursuant to section ninety-seven-ccc of the state finance law and shall be used for research and education programs undertaken pursuant to section ninety-seven-ccc of the state finance law. Provided, however that one year after the effective date of this section funds in the amount of six thousand dollars, or so much thereof as may be available, shall be allocated to the department to offset costs associated with the production of such license plates.

* NB There are 2 § 404-q's

APPENDIX VI

STATE OF NEW YORK HEALTH RESEARCH SCIENCE BOARD BYLAWS

I. CHAIRPERSON

The Chairperson of the Health Research Science Board ("Board") shall be designated by the Governor. The Chairperson shall perform the duties ordinarily associated with that office. The Chairperson shall have responsibility for the general supervision of the work of the Board. He or she shall have the power, unless the Board shall have provided for other representation, to represent the Board before the Governor, committees of the Legislature, or other public authorities, and may request any member or members to appear with him or her in his or her stead. The Chairperson shall preside at Board meetings. In the absence of the Chairperson from any meeting, the Board may elect one of its members to preside during such absence.

II. CODE OF ETHICS

Members of the Board shall comply with Section 74 (Code of Ethics) of the Public Officers Law. No member of the Board should have any interest, financial or otherwise, direct or indirect, or engage in any business, transaction, or professional activity, or incur any obligation of any nature, which is in substantial conflict with the proper discharge of his or her duties as a Board member. Members should exercise their duties and responsibilities as Board members in the public interest of the inhabitants of the State, regardless of their affiliation with, or relationship to, any facility, agency, program, activity, category of provider, or interest group. The principles that should guide the conduct of Board members include, but are not limited to, the following:

- a) A Board member should endeavor to pursue a course of conduct that will not raise suspicion among the public that he or she is likely to be engaged in acts that are in violation of his or her trust as a Board member.
- b) No Board member should permit his or her employment to impair his or her independence of judgment in the exercise of his or her duties as a Board member.
- c) No Board member should disclose confidential information acquired by him or her in the course of his or her duties as a Board member, or by reason of his or her position as a Board member, nor use such information to further his or her personal interests.
- d) No Board member should use, or attempt to use, his or her position as a Board member to secure unwarranted privileges or exemptions for himself or herself or others.
- e) No Board member should engage in any transaction as a representative or agent of the State with any business entity in which he or she has a direct or indirect financial interest that might reasonably tend to conflict with the proper discharge of his or her duties as a Board member.

- f) A Board member should refrain from making personal investments in enterprises which he or she has reason to believe may be directly involved in decisions to be made by him or her as a Board member or which will otherwise create substantial conflict between his or her duty as a Board member to act in the public interest and his or her private interest.

III. CONFLICT OF INTEREST

Section 1. Pending Applications and Requests. This section applies both to activities of the full Board and activities of committees of the Board.

- a) **Absolute Disqualifications.** When a Board member, or a member of a committee who is not a Board member, submits an application for a grant from the Breast Cancer Research and Education Fund, under Section 2411(1)(e) of the Public Health Law, or a request for access to Pesticide Registry or pesticide application information, under Section 2411(1)(d) of the Public Health Law, or a Board member, or a member of a committee who is not a Board member, or his or her family has an interest, financial or otherwise, whether as owner, officer, director, fiduciary, employee, consultant or supplier of goods or services regarding a facility, agency or program or activity whose application for a grant from the Breast Cancer Research and Education Fund, under Section 2411(1)(e) of the Public Health Law, or whose request for access to Pesticide Registry or pesticide application information, under Section 2411(1)(d) of the Public Health Law, is before the Board or a committee of the Board for consideration or determination, that member shall (i) identify such interest to the Board or committee at any meeting when the application or request is to be considered, (ii) absent himself, or herself, from any portion of any meeting when such application or request is considered, and (iii) not participate in any vote of the Board or committee on such application or request. For purposes of this Article, "family" shall include a spouse, children and any relative living in the member's household.
- b) **Disclosure and Possible Disqualification.** When a Board member, or a member of a committee who is not a Board member, or his or her family has (i) any of the above-noted interests in a facility, agency, program or activity, the status of which might reasonably be affected by another facility, agency, program or activity whose grant application or request for access to Pesticide Registry or pesticide application information is before the Board or a committee of the Board, or (ii) when a member has any other interest or association which might reasonably be construed as tending to embarrass the Board or elicit public suspicion that he or she might be engaged in acts in violation of his or her trust as a Board member, he or she shall, at the time of formal consideration of such application or request by the Board or committee, disclose such interest or association so that the Chairperson and, if necessary, the Board or committee can then determine whether his or her participation in the discussion of such application or request or the vote of the Board or committee thereon would be proper.
- c) **Procedure.** After a motion is made concerning a grant application or request for access to Pesticide Registry or pesticide application information and prior to discussion or vote, and at the request of the Chairperson, the Board members and members of committees who are not Board members, shall disclose all actual or potential conflicts and, when appropriate,

explain the conflicts. In the case of conflicts constituting Absolute Disqualifications, the members with such conflicts shall immediately leave the meeting and remain absent during the period when the application or request is under consideration. In the case of conflicts constituting Possible Disqualifications, the Chairperson shall rule upon such conflicts subject to appeal by motion to the Board or committee that may override the Chairperson's decision by the affirmative vote of a majority of those present, excluding those members who are the subject of the vote.

- d) **Compliance with Public Officers Law.** Members of the Board shall comply with Sections 74 and 78 of the Public Officers Law as amended and the following rules governing conflicts of interest: (i) No member shall receive compensation in return for services rendered in relation to matters before any State agency if compensation is contingent upon action or failure to act by such State agency, (ii) no member of the Board who is also associated with any firm or association in which he/she has a specific interest shall sell any goods or services valued in excess of \$25 to any State agency unless pursuant to competitive bid, (iii) no member of the Board shall accept any gift (in excess of \$75) under circumstances in which it could reasonably be inferred that the gift was intended to influence him/her as a member of the Board, (iv) members of the Board shall avoid any action which might result in or create the appearance of a conflict of interest.

Section 2. Pending Matters-Committees.

- a) **Disclosure at Committee Meetings.** When a member of a committee of the Board or his or her family has any of the interests noted in Section 1(a) of this Article in a facility, program or activity the status of which might reasonably be affected by a matter which is before the committee, or when a member has an interest or association which might reasonably be construed as tending to embarrass the Board or committee or elicit public suspicion that he or she might be engaged in acts in violation of his or her trust, he or she shall, at the time of formal consideration of such matter by the committee, disclose such interest or association to the committee so that the committee is fully aware of such member's interest or association. A committee member who discloses such interest or association may, but shall not be required to, abstain from participation in the discussion of or vote on such matter at the committee meeting, unless a member is absolutely disqualified from voting in accordance with Section 1(a) of this Article.
- b) **Disclosure at Board Meetings.** When the Chairperson of any committee which considered a matter reports the Committee's deliberations and recommendations to the Board, the Committee Chairperson shall indicate in the report all interests or associations disclosed by the committee members and state how such members voted with respect to the committee's recommendations. A committee member who disclosed such interest or association may, but shall not be required to, abstain from participation in the discussion of or vote on such matter at the Board meeting, unless a member is absolutely disqualified from voting in accordance with Section 1(a) of this Article.
- c) **Violation of Provisions.** If any member knowingly and intentionally violates these provisions, the Board or its chairperson shall refer the matter to the Commissioner of Health for appropriate action.

IV. DESIGNATION AND DUTIES OF THE SECRETARY

The Board shall request the Department of Health to designate a Department employee as the Board's Secretary.

The Secretary shall prepare and send official notices of actions of the Board and shall administer the daily business of the Board under the general direction of the Chairperson. The Secretary shall send a copy of the Minutes of each meeting of the Board to each member of the Board as soon as practicable after the meeting. The Minutes, as approved or corrected, shall serve as the official record of a meeting of the Board. Minutes shall be distributed or made available to the public after they have been approved by the Board. The Secretary shall make available records requested under the Freedom of Information Law and make announcements to the media and public of scheduled meetings as required by the Open Meetings Law.

V. MEETINGS OF THE BOARD

- a) The regular meetings of the Board shall be held at least six times during the first year subsequent to December 1, 1997, and at least four times a year thereafter at a date, time and place approved by a majority of members, unless otherwise determined by the Board or by the Chairperson, who shall notify the Secretary at least ten business days in advance of the meeting. Special meetings of the Board may be called by the Chairperson at his or her discretion, or on the request of two members, and shall be called by the Chairperson on the written request of three members.
- b) At least one meeting each year shall be a public hearing at which the general public may question and present information and comments to the Board with respect to the operation of the Board, the Breast Cancer Research and Education Fund, the Prostate and Testicular Cancer Research and Education Fund and pesticide reporting established pursuant to Sections 33-1205 and 33-1207 of the Environmental Conservation Law. At the public hearing, the Commissioner of the Department of Environmental Conservation or his or her designee shall make a report to the Board with respect to the efficiency and utility of pesticide reporting established pursuant to Sections 33-1205 and 33-1207 of the Environmental Conservation Law.
- c) At least some portion of every regular Board meeting shall be set aside for public comment. A portion of one Board meeting each year shall be set aside for presentations of progress reports from selected award winners.
- d)
 - 1) The Secretary shall notify each Board member of Board meetings and shall send an agenda to his or her usual address not less than ten business days before the meeting.
 - 2) A majority of the voting members of the Board shall constitute a quorum for the transaction of any business or the exercise of any power or function of the Board and all matters requiring action shall be passed by a vote of a majority of the voting members of the Board. (A voting member abstaining from a vote shall be counted as present for the purpose of establishing a quorum.) Except as provided below, all meetings shall be conducted in accordance with Robert's Rules of Order Newly Revised, and a record of each vote shall be maintained. Non-voting ex officio members

of the Board may make motions to be considered by the Board, but may not vote on these or any other motions before the Board. The normal method of voting shall be by roll call. A roll call vote on any question shall be taken by ayes and noes, abstentions noted, and a record of how each member voted entered in the Minutes.

- 3) Any member who fails to attend three consecutive meetings of the Board, unless excused by formal vote of the Board, shall be deemed to have vacated his or her position.
- 4) Meetings of the Board shall be noticed and conducted in accordance with the requirements of Article 7 (Open Meetings Law) of the Public Officers Law. Such meetings shall be open to the public except when otherwise provided by law. Guidelines for observers shall be adopted by the Board.

VI. ORDER OF BUSINESS

The order of business may be altered at the Chairperson's discretion or upon the request of a Board member.

A portion of each Board meeting shall be set aside for the development of an agenda for the next Board meeting.

VII. PROPOSAL REVIEW PROCESS

Ad Hoc Review Panels

There shall be one or more ad hoc review panels to review proposals (referred to as "applications for grants" in Public Health Law § 2411(1)(e)) for merit and to make recommendations to the Board for funding

The Board and DOH staff will establish one or more ad hoc review panels, each of which shall be composed of one or more Board members, at least two breast cancer survivors and/or activists, and experts in breast cancer research and/or education. The number of ad hoc review panels will be dependent on the number of proposals received by the Board.

Responsibilities of the Board

The Board shall consider and rank proposals considered by the ad hoc review panels. Following an affirmative vote of Board members, the Board shall recommend that the Commissioner of Health approve those proposals for which the Board determines that funding is available. Board or committee meetings, or portions thereof, at which Board or committee members consider, rank, discuss or vote on proposals received by the Board may be conducted in executive session as authorized by the Open Meetings Law.

Summary Report

A summary report of the proposal review process will be prepared by Department of Health staff in consultation with the Board and made available to the public subsequent to the Board's recommendations to the Commissioner of Health.

Guidelines

The Board shall adopt guidelines that will specify additional aspects of the proposal review process.

VIII. COMMITTEES

There shall be the following Standing Committees:

1. On oversight of the development of requests for proposals (grant applications), and the process used to review proposals received by the Board; and on evaluating breast/prostate/testicular cancer research and educational program effectiveness nationwide and recommending future breast/prostate/testicular cancer research projects, called the:

Committee on Research Needs and Education Program Effectiveness

2. On oversight and management of information requested by researchers from the New York State Department of Environmental Conservation Pesticide Registry and from pesticide applicators, called the:

Committee on Access to Pesticide Registry and Pesticide Application Information

3. On Breast Cancer Research and Education Fund contributions, and the Board's outreach activities, called the:

Committee on Funding and Outreach

Each Standing Committee should be chaired by a Board member, shall consist of one or more members of the Board and may include non-Board members. The Chairperson of the Board shall appoint all Standing Committees and designate their Chairpersons. Duties of Standing Committees shall be prescribed by the Chairperson of the Board with approval by a majority of Board members.

In appointing Board members to any Standing Committee, the Chair shall, to the extent practicable, ensure that the Committee's composition reflects the overall composition of the Board and that any such Committee includes Board members and, if appropriate, non-Board members with relevant interests.

The Board may, at any time, provide for the appointment of a special committee on any subject. All such special committees not previously discharged by the Board shall be considered discharged one year following their appointment, unless the Board shall move to continue them.

A majority of the persons appointed to serve on a committee shall, if at least one Board member is present, constitute a quorum for the committee.

All committee matters requiring action or a formal recommendation shall be passed by a vote of a majority of the members appointed to serve on the committee.

When making a report to the Board, a committee should, in addition to reporting any recommendations of the majority of the committee, summarize any significant deliberations leading to such recommendations as well as opinions or recommendations of committee members who did not support the majority recommendations.

IX. OFFICE OF THE BOARD

The official headquarters of the Board (at which the official copies of its Minutes, records, documents and other papers shall be kept) shall be at the offices of the Commissioner of Health at Albany, New York. The Secretary shall be responsible for the safe-keeping of all Minutes, records, documents, correspondence and other items belonging to the Board. Every member of the Board and any other person duly authorized by a member shall have access at all times during the ordinary office hours of the Department of Health to all such Minutes, records, documents, correspondence and other items belonging to the Board; provided, however, that persons authorized by members shall not have access to records, documents, correspondence or other items that are exempt from disclosure or confidential under the Freedom of Information Law, the Personal Privacy Protection Law, or any other state or federal law. The Secretary shall designate some person to be in charge of all such Minutes, records, documents, correspondence and other items belonging to the Board during his or her absence from the office.

X. AMENDMENT OF BYLAWS

These Bylaws may be amended by the affirmative vote of the majority of the voting members of the Board at any regular or special meeting, provided that notice of the proposed amendment has been given at a prior meeting and that a copy of the proposed amendment has been sent by the Secretary to each member of the Board at least ten business days prior to the vote.

APPENDIX VII

2004 BREAST CANCER RESEARCH POSTDOCTORAL FELLOWSHIP AWARD RECIPIENTS

Cristina L. Agbunag, Ph.D, Weill Medical College of Cornell University
Anthony M.C. Brown, Ph.D., mentor
Characterization of Wnt5a
\$120,000

Merav Ben-Yehoyada, Ph.D., Columbia University Medical Center
Jean Gautier, Ph.D., mentor
Function of BRCA1 in the Maintenance of DNA Replication Fork Integrity
\$120,000

Luca Busino, Ph.D., New York University School of Medicine
Michele Pagano, M.D., mentor
In Search for the Ubiquitin Ligase of Cyclin D1, A Key Oncoprotein in Breast Cancer
\$120,000

Kun Cai, Ph.D., Weill Medical College of Cornell University
Lorraine J. Gudas, Ph.D., mentor
The Role of the Transcription Factor Rex1 in Human Breast Cancer
\$120,000

Silvia Canudas, Ph.D., New York University School of Medicine
Susan Smith, Ph.D., mentor
Tankyrase 1 and Telomere Function in Breast Cancer and Normal Cells
\$120,000

Fei Chen, M.D., Ph.D., New York University School of Medicine
Peng Lee, M.D., Ph.D., mentor
Distinct Regulation of Breast Cancer Growth by Two Isoforms of Androgen Receptor
Coactivator ARA70 α and ARA/0 β
\$120,000

Shuaili Chen, Ph.D., Cold Spring Harbor Laboratory
Robert Lucito, Ph.D., mentor
Gene Copy Number Analysis and Identification of Molecular Biomarkers from Locally
Advanced Breast Cancers
\$120,000

Anne Marie Doody, Ph.D., Cornell University
David A. Putman, Ph.D., mentor
RNAi: A Therapeutic Approach for Treatment of Breast Cancer
\$120,000

Shuang Fu, M.D., Ph.D., Columbia University College of Physicians & Surgeons
Richard Baer, Ph.D., mentor
Checkpoint Functions of the BRCA1/BARD1 Tumor Suppressor
\$120,000

Paul Gao, M.D., Ph.D., Memorial Sloan-Kettering Cancer Center
Jacqueline Bromberg, M.D., Ph.D., mentor
Characterization of a Novel Jak/Stat Inhibitor for the Treatment of Breast Cancer
\$120,000

Luca Grumolato, Ph.D., Mount Sinai School of Medicine
Stuart Aaronson, M.D., mentor
Role of the New Wnt Receptor Ryk in Breast Tumor Progression
\$120,000

Ryosuke Hayami, Ph.D., Columbia University College of Physicians & Surgeons
Thomas Ludwig, Ph.D., mentor
Animal Models for Snail's Role in Breast Cancer Development
\$108,124

Chi-Chen Hong, Ph.D., Roswell Park Cancer Institute
Christine Ambrosone, Ph.D., mentor
Determinants of Weight Gain in Women with Early Stage Breast Cancer
\$120,000

Corinne Leloup, Ph.D., Columbia University College of Physicians & Surgeons
Howard Lieberman, Ph.D., mentor
Interactions of RAD9, RAD9B, and BRCA1 in Breast Cancer
\$120,000

Zhi-Jian Liu, M.D., Ph.D., Columbia University College of Physicians & Surgeons
Paul B. Fisher, M.Ph., Ph.D., mentor
Novel Vector to Promote Radiosensitivity and Apoptosis in Breast Cancer Cells
\$120,000

Haiyan Lu, Ph.D., Montefiore Medical Center
Edward L. Schwartz, Ph.D., mentor
Taxotere Induced Hsp90 Degradation; A Novel Mechanism of Action
\$120,000

Amy E. Millen, Ph.D., University at Buffalo
Jo L. Freudenheim, M.S., Ph.D., mentor
Vitamin D and Breast Cancer: An Epidemiologic Approach
\$119,998

Adam Mor, Ph.D., New York University School of Medicine
Mark Philips, M.D., mentor
Characterization of Isoprenylcysteine Carboxylmethyltransferase
\$120,000

Jayakumar R. Nair, Ph.D., Roswell Park Cancer Institute
Keshav K. Singh, Ph.D., mentor
Mitochondrial DNA Instability in Breast Tumorigenesis
\$120,000

Laurent Pascual-Le Tallec, Ph.D., New York University School of Medicine
Naoko Tanese, Ph.D., mentor
Chromatin Remodeling in Breast Cancer
\$120,000

Christian Riebeling, Ph.D., Albert Einstein College of Medicine of Yeshiva University
Dennis Shields, Ph.D., mentor
Fragmentation of the Golgi Apparatus in Breast Cancer Cells
\$120,000

Ramaswamy Sharma, Ph.D., Columbia University College of Physicians & Surgeons
Thomas F. Franke, M.D., Ph.D., mentor
Tyrosine Phosphorylation of AKT: Implications for Breast Cancer Cell Survival and Tumor
Prognosis
\$120,000

Wen Hong Shen, Ph.D., Columbia University College of Physicians & Surgeons
Yuxin Yin, M.D., Ph.D., mentor
Role of PTEN in Mediating Indomethacin Anti-Cancer Activity
\$120,000

Deborah Silvera, Ph.D., New York University School of Medicine
Robert J. Schneider, Ph.D., mentor
Translational Control in Inflammatory Breast Cancer Progression
\$120,000

Suwen Wei, M.D., Ph.D., Albert Einstein College of Medicine of Yeshiva University
E. Richard Stanley, Ph.D., mentor
CSF-1 Signaling in Mammary Tumor Progression and Metastasis
\$120,000

Bin Wu, Ph.D./Gong Chen, Ph.D., Memorial Sloan Kettering Cancer Center
Samuel J. Danishefsky, Ph.D., mentor
Chemical Synthesis of Erythropoietin
\$120,000

Jun Yang, M.D., Ph.D., Roswell Park Cancer Institute
Kirsten B. Moysich, Ph.D., mentor
PCBs Exposure, CYP1A1 Polymorphism and Breast Cancer Risk
\$120,000

Shengyu Yang, Ph.D., Weill Medical College of Cornell University
Xin-Yun Huang, Ph.D., mentor
Migrastatin Analogues that Inhibit Breast Cancer Metastasis
\$120,000

Tong Zhang, Ph.D., Cornell University
William L. Kraus, Ph.D., mentor
Regulation of Breast Cancer-Related Nuclear Factors by NAD⁺
\$120,000

Weizhou Zheng, Ph.D., Mount Sinai School of Medicine
Lu-Hai Wang, Ph.D., mentor
Regulation of Capsase 3 Activation by BRCA1 Phosphorylation
\$120,000

APPENDIX VIII

COMMITTEE ON ACCESS TO PESTICIDE REGISTRY AND PESTICIDE APPLICATION INFORMATION

Committee Membership – November 2006

Representing the Health Research Science Board

Nancy K. Kim, Ph.D. (Chair)

Philip Landrigan, M.D., M.Sc.

Marc Wilkenfeld, M.D.

Breast Cancer Advocacy Issues

Mara Ginsberg, To Life!

Erin O'Leary, Ph.D., Stony Brook University, SUNY

Chemical Pesticides and/or their Environmental Implications

William C. Cooke, Citizens Campaign for the Environment

John P. Hassett, Ph.D., SUNY College of Environmental Science and Forestry

Alan Rabideau, Ph.D., University at Buffalo, SUNY

Environmental Health Studies

Erin Bell, Ph.D., University at Albany, SUNY School of Public Health

Edwin Van Wijngaarden, Ph.D., University of Rochester Medical Center

Commercial or Private Pesticide Applications

Patrick M. Hooker, New York Farm Bureau

David McMaster, Bartlett Tree Experts

H. Pat Voges, Nassau Suffolk Landscape Gardeners Association

Committee Charge

The Committee shall review requests by researchers for pesticide registry information and pesticide application information for use in human health-related research projects. Review and approval of requests shall be consistent with the requirements of Public Health Law Section 2411(1)(d) and with guidelines to restrict the dissemination by researchers of confidential pesticide registry or pesticide application information. The Committee shall establish procedures, as necessary, for reviewing the requests in a timely manner for forwarding recommendations to the Health Research Science Board for final action.

APPENDIX IX

PROCEDURES FOR REVIEWING APPLICATIONS FROM RESEARCHERS FOR CONFIDENTIAL PESTICIDE INFORMATION (Revised 10/16/06)

Confidential information from the Pesticide Use and Sales Data Base (also called the Pesticide Registry) collected by NYSDEC and pesticide application information maintained by private applicators are, with certain restrictions, available to scientists involved in human health-related research. Any information, including name and address, that could identify a commercial or private applicator of pesticides, including a farmer, or anyone who receives the services of a commercial applicator is considered confidential information. Researchers interested in obtaining confidential pesticide registry information, or pesticide application information, should contact the NYSDOH toll-free at 1-800-458-1158 extension 2-7820. The following researcher access documents will be sent to the researcher: Request for Pesticide Registry or Pesticide Application Information, Guidelines to Restrict the Dissemination by Researchers of Confidential Pesticide Registry and Pesticide Application Information, Agreement to Maintain Confidentiality, Additional Information Concerning the Confidentiality Plan, and an information sheet that summarizes the documents in every day language. The entire process of review described below requires four to six months.

When an application for the confidential pesticide registry or pesticide application information is received, members of the Committee on Access to Pesticide Registry and Pesticide Application Information (the pesticide committee) are contacted to determine the next possible meeting date. While this meeting is being scheduled, the application undergoes a pre-review process. The application is summarized by NYSDOH staff and then reviewed by three members of the pesticide committee to determine whether there is enough information in the application to enable the pesticide committee to make a decision. If additional information is needed, the applicant is asked to provide it before the scheduled committee meeting, and any additional information provided becomes part of the application. The Committee on Access to Pesticide Registry and Pesticide Application Information meets to discuss each application.

The committee considers the following four criteria when reviewing an application for confidential pesticide data: 1) Is the researcher engaged in human health-related research? 2) Is the research done under the auspices of an institution? 3) Does the project have Institutional Review Board approval? 4) Is the confidentiality plan (request form II.i) consistent with the requirements of the draft confidentiality agreement? The committee discusses and votes on each criterion. The committee can vote that the criterion has been fulfilled; the criterion has been fulfilled, but the committee adds conditions; or the criterion has not been fulfilled. A vote is passed by a majority of the members appointed to the committee.

After the meeting, a summary of the committee's deliberations is prepared, which includes the results of the vote on each criterion, points of discussion, and the committee's recommendations to the Board. The committee may request additional information from the researcher to be brought before the Board. The application and all relevant material are sent to the Board in advance of its next meeting. The Board discusses the application and can vote to approve the request, to approve the request with conditions, or to deny the request.

The decision is sent in writing to the researcher. In the case of approval with conditions, the researcher is usually asked to submit additional materials to be reviewed to determine whether the conditions have been met. When the conditions are met, or when the Board approves a request, the researcher is notified in writing of the decision, and confidentiality agreements are executed. After the confidentiality agreements are signed by each researcher with access to the confidential data and a representative of the Board and are notarized, the data are released to the researcher.

APPENDIX X

REQUESTS FOR CONFIDENTIAL PESTICIDE REGISTRY OR PESTICIDE APPLICATION INFORMATION RECEIVED DURING 2005-2006

- Project Director: Wendy McKelvey, Ph.D.
Office of Environmental Surveillance and Policy
New York City Department of Health and Mental Hygiene
253 Broadway, 6th floor, Box CN34C
New York, NY 10007
- Project Title: Association between Commercial Application of Pesticides in Residential Areas and Birth Outcomes in New York City
- Abstract: Fetuses, infants, and children are more susceptible than adults to toxic effects of many chemicals, including pesticides. We hypothesize that exposure to organophosphate and pyrethroid pesticides during gestation increases risk of intrauterine growth retardation and preterm birth. We aim to estimate relative risks of these conditions according to amount of commercially applied pesticide during gestation at a mother's usual residence, using data from NYC birth certificates and NYS Pesticide Sales and Use Registry. We will assign each birth a pesticide exposure level based on commercial pesticide application data reported for the mother's usual residence.
-
- Project Director: Tammo S. Steenhuis, Ph.D.
Department of Biological & Environmental Engineering
Cornell University
Riley-Robb Hall
Ithaca, NY 14853
- Project Title: Surveying Upstate New York Well Water for Pesticide Contamination (Cayuga and Orange Counties)
- Abstract: NYSDEC and others have expressed an interest in a survey of representative areas in upstate New York to determine the occurrence and extent of pesticide contamination of groundwater. Of particular interest are areas of greatest vulnerability where significant pesticide use coincides with shallow aquifers, presenting elevated contamination risks. The results of this survey would contribute to an assessment (by DEC and others) of the human exposure risk from pesticides in groundwater. The first year of work was a pilot-scale program, focused on a single shallow aquifer system in the Cortland Valley, followed by a second year of work in Schenectady County. As we discussed in our recent presentation to the HRSB, tasks still underway from the Schenectady County project are: 1) analysis of 40 well samples by NYSDEC, and 2) analysis of the

correlations between the PSUR database and the sampling results, which cannot be completed until well water analysis is available. We are requesting data access for work in two counties where the Soil & Water Conservation Districts have agreed to cooperate in this undertaking. This data request is thus for Cayuga and Orange counties.

APPENDIX XI

STATUS OF AGENCY ACTIONS ON HRSB RECOMMENDATIONS FROM 2000 AND 2002-2003 SURVEYS ON PESTICIDE REPORTING

<i>Source*</i>	<i>Recommendation</i>	<i>Status</i>
	Recommendations not requiring a change in legislation	
2000(1)	1. DEC should express data in both pounds of product and pounds of active ingredient	This requires knowing the specific gravity of every product registered in NYS. DEC has altered its internal processes to capture this information as products are registered. It has taken several years to capture most of the specific gravities for the 14,000 registered products. DEC has made significant progress toward expressing data in both pounds of product and pounds of active ingredient. Cornell is developing a website to provide active ingredient summaries of the data. The software itself is almost completed. Cornell is currently verifying the density and product formulation State data. These values are needed to convert the product data into active ingredient data.
2000(2)	2. The board should continue to inform researchers of the availability of funds for research on cancer and of the availability of the pesticide data for research.	This is an ongoing effort. The availability of funds continues to be publicized. A web page describing and linking to the Pesticide Sales and Use Database is being added to the Department of Health Environmental Public Health Tracking web site.

<i>Source*</i>	<i>Recommendation</i>	<i>Status</i>
2000(3)	3. DEC should ensure accurate reporting of the data by continuing to develop and implement quality assurance and quality control procedures.	This is an ongoing effort by staff from both DEC and Cornell University to continually improve the reporting rate and data quality by raising the threshold for report acceptance each year. They continue to refine the front-line quality control program where DEC staff evaluate incoming reports to ensure basic criteria are met to maximize the volume of data that can be transferred to Cornell's master database. If a report does not meet the criteria, staff seeks to correct the report with the reporting entity. If the errors are too numerous, the report is rejected and returned to the business or applicator to be corrected and resubmitted. Revised data have been released as a result of these efforts. In addition, in 2006 new computer programs were developed by Cornell to review the data using criteria developed by DEC in a manual review of the reports. Error reports were produced, and outreach efforts are underway to correct the data.
2000(4c)	4. DEC and Cornell should explore ways to assist the pest control industry with reporting amount of concentrate despite the fact that commercial applicators deal with diluted material.	This is an ongoing educational effort. DEC has done extensive telephone outreach on a case-by-case basis, educating applicators on correct reporting. In addition, DEC and Cornell have developed programs to conduct quality checks on reports with quantities that appear to fall outside accepted parameters. Staff review reports containing these "out-of-range" quantities and the responsible entities are contacted. With the approval of the applicator or business, staff corrects the reporting errors. The corrected data are forwarded to Cornell.
2000(4d)	5. Examine strategies to assist reporting of locations without a street address (e.g., rights of way, streams, parks, and aerial applications), such as use of a Geographic Information System (GIS).	This is an ongoing effort. GIS cannot be used for reporting in all areas of the State; some options, such as reporting mile markers, stream tributary numbers, etc., have been implemented, while others are under discussion.

<i>Source*</i>	<i>Recommendation</i>	<i>Status</i>
2000(4e)	6. Devise methods to increase or improve reporting, possibly through additional outreach and/or enforcement activities and electronic reporting.	An electronic reporting option is in place and was highlighted at workshops held throughout the State and by direct mailing to all applicators and sellers. Due to extensive outreach efforts, DEC now receives more than half of the PRL data in an electronic format. However, to mandate electronic reporting would require a change in law by the Legislature. Enforcement actions are taken each year against applicators and sellers that do not report.
2002-03(1)	7. Determine whether the data can be aggregated by different categories such as use, various geographical units, etc.	DEC is exploring the feasibility of incorporating pesticide searches and different geographical units into the active ingredient website. Any new geographical units would be based on the existing location data already collected. These searches would be incorporated in the product site once migrated to the new platform.
2002-03(2)	8. Modify the web sites for ease of use and flexibility in creating reports	The active ingredient website now features a more modern look, multi-year searching capabilities, and several use enhancements. For example, to find ZIP codes to use in a search, users can select all the ZIP codes in, or partially contained, in a county. The product-based web site will be migrated to this new platform.
2002-03(4)	9. Examine the possibility of using pesticide-poisoning data in conjunction with the PSUR data.	Using pesticide poisoning data in conjunction with the PSUR data would not be productive since about 99% of the pesticide poisoning reports involve improper use of unrestricted pesticides that can be purchased at retail outlets, such as hardware stores and home centers. These products are not included in the PSUR database. However, DOH is exploring the usefulness of the PSUR data for environmental health surveillance as part of the Environmental Public Health Tracking Program. Under this program, hazard, exposure, and health data sets are examined for unusual trends or geographic patterns. An important step in this evaluation is gaining a better understanding of data quality.

<i>Source*</i>	<i>Recommendation</i>	<i>Status</i>
	Recommendations requiring a change in legislation	
2000(L1)	1. Change the date by which DEC must issue its report to the Governor and Legislature to allow more time for data quality control and assurance. If partial data are released, they should be available as soon as possible; the final report should contain only high-quality data; and the data and report should be readily accessible.	Change of date requires change by Legislature. Quality assurance of the data and education of the regulated community are ongoing efforts. All non-confidential data are publicly available on the Internet or by requesting a CD-ROM.
2000(L2)	2. DEC should identify options for including data on pesticides applied by private applicators (primarily farmers) in the database and report on these options to the Board.	Including these data in database and reports requires a change in the law by the Legislature.
2000(L3)	3. DEC should identify options for including data on target organisms and crops to which pesticides are applied in the database and report on these options to the Board.	Including these data in database and reports requires a change in the law by the Legislature.
2000(L4)	4. DEC should identify options for including data on pesticides purchased and applied by private citizens in the database and report on these options to the Board, and DEC should review upcoming reports from Wisconsin and Oregon, which are currently conducting scoping studies of this issue.	Information from Wisconsin and Oregon has been reviewed. Oregon conducted a pilot survey on household use reporting in 2002, but the entire PURS was not funded in 2003-2005. The program was funded again in 2006, and the household use survey was implemented. A report on statewide pesticide use is expected in July 2007. More information is available at http://www.oregon.gov/ODA/PEST/purs_ind_ex.shtml . Wisconsin's advisory committee recommended in 2001 that a pilot pesticide use census be conducted, but the census was not conducted because of lack of funding.
	Implemented Recommendations	
2000(4a)	1. Include in the report to the Governor and Legislature a reference to the Pesticide Poisoning Registry Report from DOH.	Done. The annual report to the Governor and Legislature now includes a reference to the Pesticide Poisoning Registry.

<i>Source*</i>	<i>Recommendation</i>	<i>Status</i>
2000(4b)	2. Include in the report to the Governor and Legislature a reference to documents that provide information on the potential for specific pesticides to leach into the groundwater.	Done. The annual report to the Governor and Legislature includes a reference to documents that provide information on the potential for specific pesticides to leach into the groundwater.
2002-03(3)	3. Include in the biennial reports references to studies that have been based on or influenced by the database as examples of how PSUR data could lead to higher-level research.	A list of studies published in the scientific literature that were based on or influenced by the PSUR data appeared in the 2003-04 biennial report. The list is being updated in each subsequent report.

*Year of survey from which recommendation originated, with number from the original table.

APPENDIX XII - OCTOBER 2006 PRESENTATIONS TO THE BOARD



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

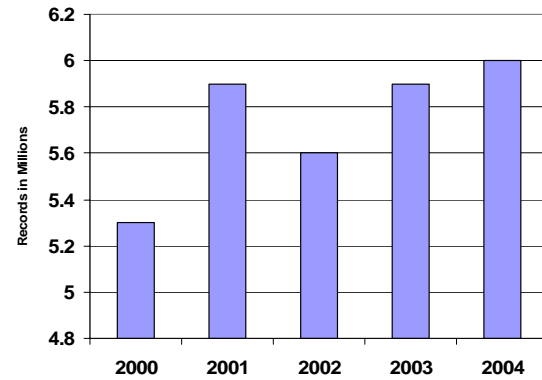
**Margaret O'Neil, Chief
Pesticide Reporting &
Certification Section**

518-402-8748

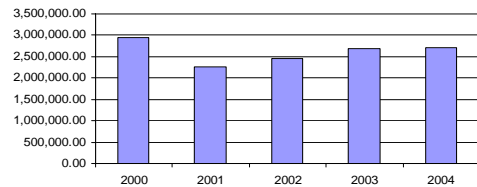
pestmgt@gw.dec.state.ny.us



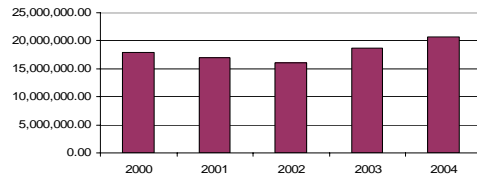
Number of Records Reported



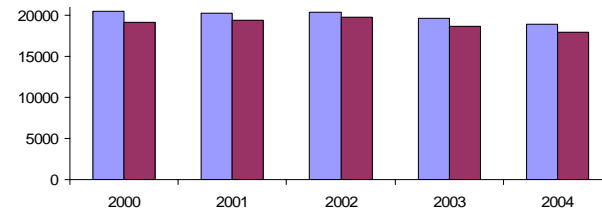
Total Amount Applied in Gallons



Total Amount Applied in Pounds

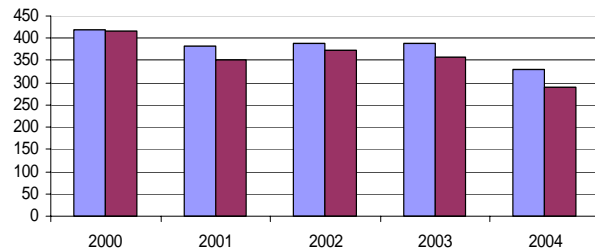


**Expected Reports and Received Reports
for Applicators**





Expected and Received Reports for Commercial Permittees



Electronic Reports (Blue) as Percentage of Total Records

2000



88%

2001



78%

2002



66%

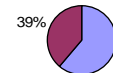
2003



40%

60%

2004



39%

61%



DEC Review of Reports

- a) be in the Department's standard format;
- b) contain complete data in every column;
- c) have valid certification numbers or a valid commercial permit number;
- d) be legible;
- e) list the "undiluted" quantity of pesticide used;
- f) list an acceptable "unit of measurement";
- g) list the exact date of application; and
- h) contain complete addresses (including house number and street name, full name of city or village and zip code).



Review Process for 2005

- Reports are shipped for data entry immediately
- Cornell runs programs to check against DEC standards for acceptable report
- Cornell provides audit reports to DEC for outreach/revisions
- DEC returns corrected data to Cornell



Enforcement

Applicators/Technicians/Permittees

- 2004: 1,663
- 2003: 1,894
- 2002: 1,437
- 2001: 1,680
- 2000: 2,500

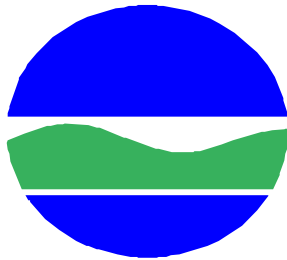


Enforcement (cont'd.)

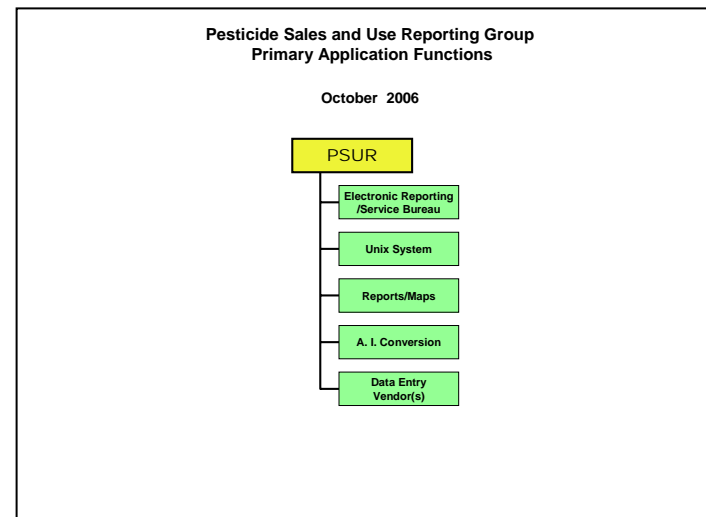
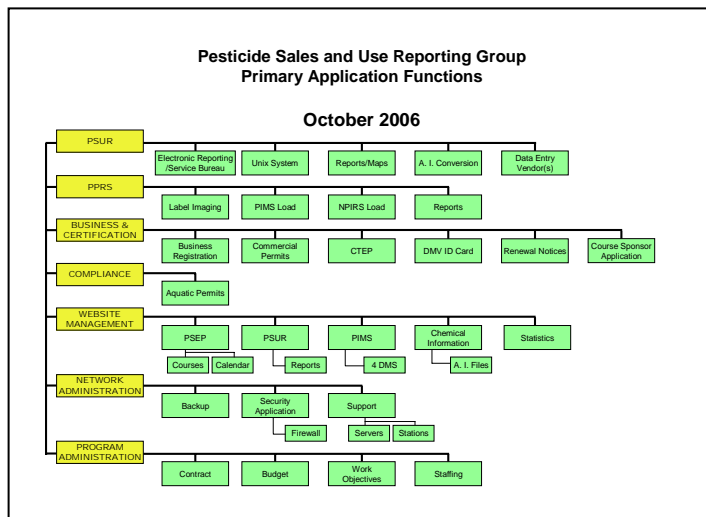
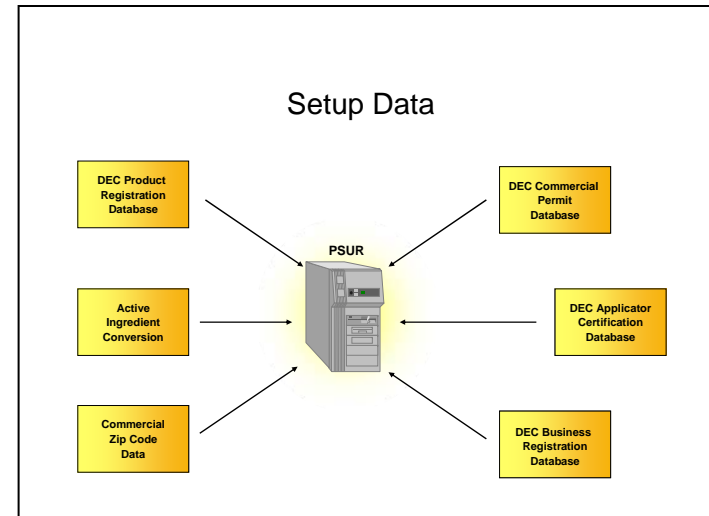
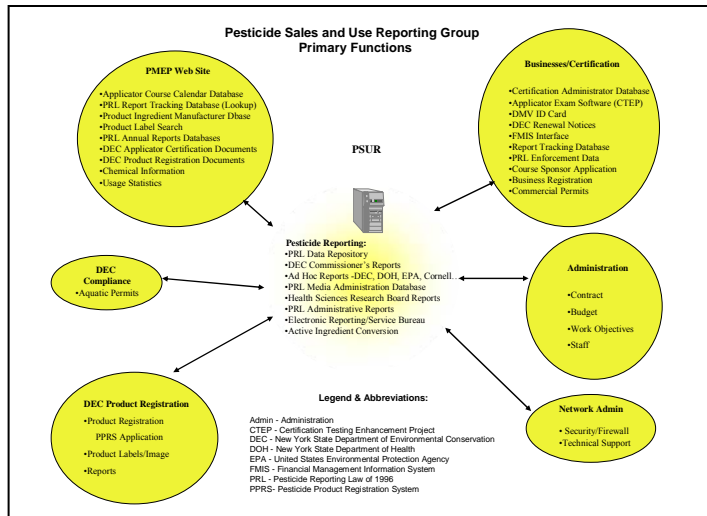
- As a result of this action, many of those entities were assessed a civil penalty.
- Many other applicators and technicians elected to voluntarily surrender their certification instead of paying a penalty.
- The result of this surrender is they are no longer certified to make commercial pesticide applications.
- Those entities who did not settle the violation will not be granted renewal privileges until their violation is resolved.

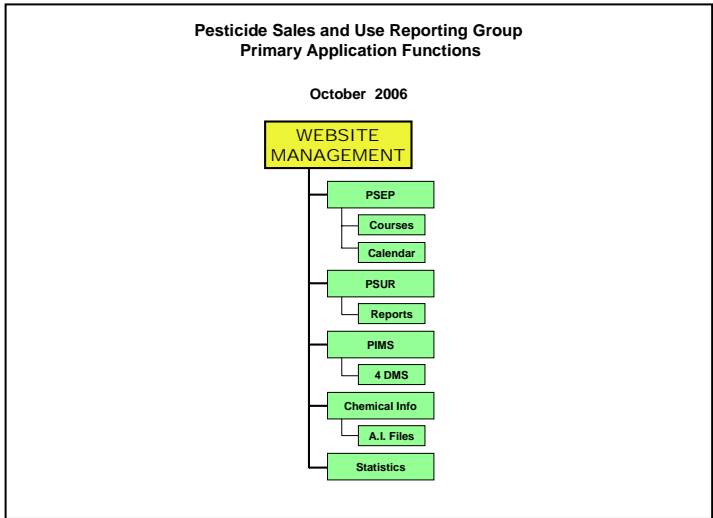
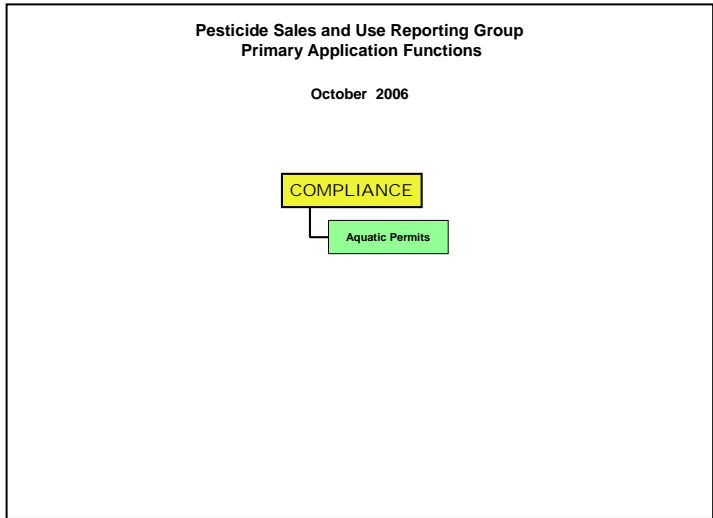
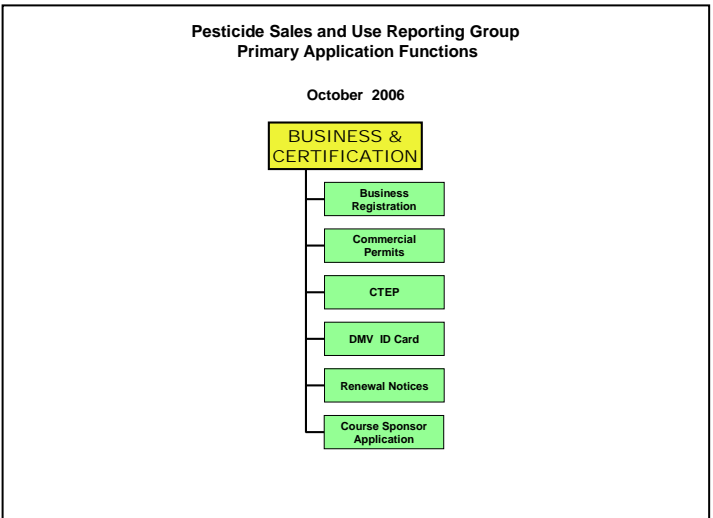
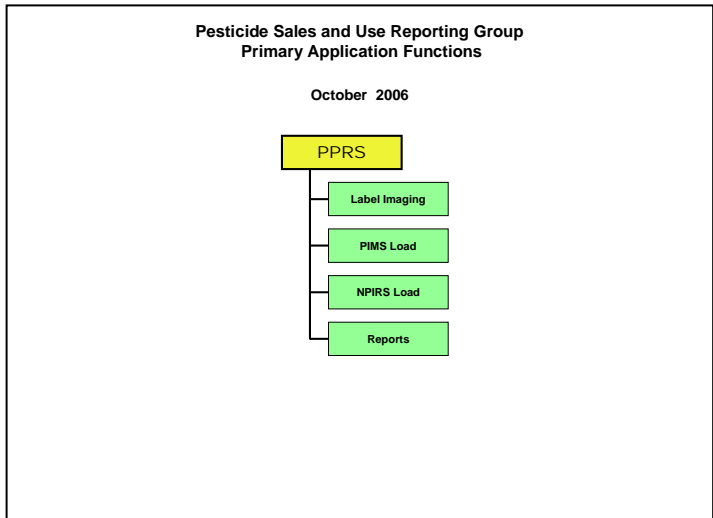


**NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**



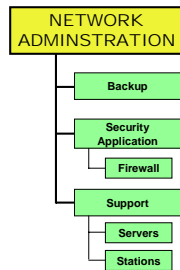
THANK YOU





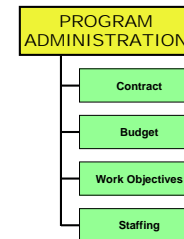
Pesticide Sales and Use Reporting Group
Primary Application Functions

October 2006



Pesticide Sales and Use Reporting Group
Primary Application Functions

October 2006



Active Ingredient Project

- **Background**
 - Currently pesticide reports are at the product level
 - Special/Research/Regulated communities interested in active ingredients
 - Meaningful usage/sales data by discounting the inert chemicals
- **Value to users**
 - Ease of trend analysis (active chemicals rather than inert)
 - Standard unit of measure (in pounds)
 - Easier summary comparisons (across multiple years)
 - Faster data access (rather than wait for customized reports)

Active: Analysis/Planning

- 2003 PRL data as baseline
- “Internal vs External” data warehouse for access and search capability
- Standardize units of measure
 - Convert liquid pesticide from gallons to pounds using one of the following:
 - Pounds per Gallon -- found on label
 - Product Density -- generated by mfg.

Active: Client Interaction

- NYS Department of Health
- USDA's National Agricultural Statistics Service – Stephen Ropel
- NYS Department of Environmental Conservation
- California's Department of Pesticide Registration

Active: Presentation Layer

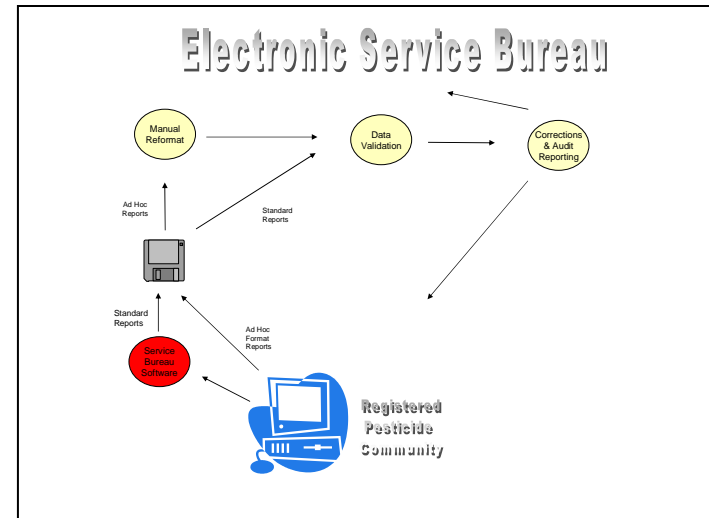
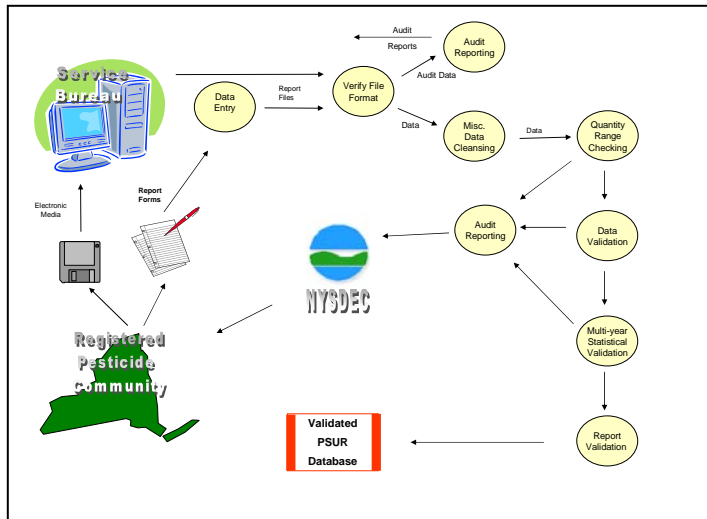
- New website with search capabilities
 - By Active Ingredient
 - By Zip
 - By County
 - Multiple year comparison
- Technologies
 - .Net Platform
 - C#
 - SQL Server

Active: Current Progress

- Web interface built
 - Undergoing system and performance testing
- Extraction of the associated PRL data in progress
- Data transformation/load process currently being developed

Active: Future Enhancements

- 2000, 2001, 2002 conversion
 - Bring data to standards
- Product and active usage/sales linked together
- Future internal query capabilities
 - By Use Type
 - By Pesticide Type
 - Restricted Use
 - Reduced Risk, Biorationals, etc.



Service Bureau Software

- Standard reporting options validations
 - EPA Registration Nbr. format
 - Date & Numeric data types
 - Certification & Sales Permit ID formats
 - Partial county code validation
 - Zip code format
 - Units drop down list

Service Bureau Software

- Additional Usability features
 - Copy row
 - EPA Reg. Nbr. reuse
 - Includes columns for storing record-keeping data

Manual Report Reformatting

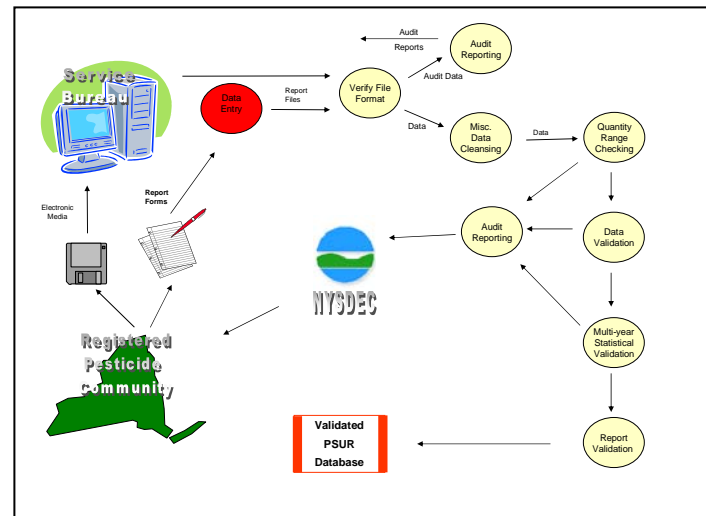
- DEC accepts non-standard computer generated reports (within reason)
 - 350+ reports
 - Each reports must be manually reviewed & reformatted
 - Data cleansing done at this time
 - County and zip code look ups
 - EPA Registration Numbers looked up
 - Outreach to businesses/appliators
 - ...

Service Bureau Data Validation

- File format and data values checked
 - Preliminary validation. Reports rechecked later during the PSUR data validation step.
 - Reports meeting the audit threshold are accepted
 - Audit report of each file generated
 - Reports usually checked within a week of receipt
 - Businesses contacted much sooner than for paper submissions

Corrections & Audit Reporting

- Corrections made when feasible
 - Tools
 - Product Ingredient Manufacturer web site
 - Zip code, town, and county look up sites
 - MS Excel to standard format transformation tool (developed in house)
 - Regular expressions
 - ...
- Businesses contacted when necessary
 - Data validation audit report sent



Paper Data Entry QA/QC

- Decipher non-standard form submissions
- Code illegible/irregular values
- Reformat dates
- Validate Certification & Permit IDs
- Standardize city using zip code look up
- Duplicate dittoed fields

Verify File Format

- Verify whether files are readable by the PSUR applications
 - Required number of fields present
 - Files named so the type of data can be identified (applications, sales etc.)
 - Fields contain required data types (numbers, characters etc.)
 - Ex.: Zip code is numeric
 - Field lengths
 - ...

Miscellaneous Data Cleansing

- Convert applications of cooling tower and wood treatment products back to gallons
 - 2003 report:
 - 1,170,075.77 pounds applied converted into 85,493.83 gallons
 - 782,000 pounds of restricted pesticide sales into 52,171.59 gallons
- Convert liquid products reported as dry ounces (OZ) into fluid ounces (FL)
 - Preliminary assessment of impact on 2005 report:

Quantity Range Checking

- Scan Data application checks for out-of-range quantities
 - Scan for quantities above a threshold value
 - Common errors:
 - Misplaced or incorrectly data-entered decimal points
 - Systematic computer-generated errors

Data Validation

- Data Validation Application
 - What is data validation?
 - Fields checked against set up tables
 - Ex., Zip code valid?
 - Value checks
 - Ex., Date month and day within valid ranges?
 - Presence checks
 - Ex., Required fields reported?

Data Validation

- Types of Edits:
 - Format error
 - Validation error
 - Illegible value reported
 - Irregular value reported
 - Null value reported
 - Formulation state
 - Density error
 - Report year, date mismatch
 - Date range greater than 1 year
 - Out of state
 - ...

Data Validation

- Validated Fields
 - ID Nbrs.
 - EPA Registration Nbr.
 - Units
 - Quantity
 - Zip code
 - County code
 - Date
 - Report type
 - ...

Data Validation

- Flag non-standard records for separate reporting
 - Incorrect report year
 - Sales returns
 - Out-of-state application or sale
 - General use product reported on Form 25

Data Validation

- Additional data cleansing
 - Ex., California revision codes stripped from EPA Registration Numbers
 - Ex., units of measure are matched against known spelling and punctuation variants
 - Initial reported values retained
- Vendor audits
 - ID numbers checked to verify the vendor's ID number validation

Data Validation

- Data validation audit report (beginning for report year 2004)
 - Previously DEC manually reviewed paper reports
 - Labor intensive
 - Less thorough
 - Audits summarized by business
 - Sorted from highest to lowest audit percentage

Statistical Validations

- Load multiple years into statistics package (not yet implemented)
 - Proposed validations:
 - Quantity variances for each product
 - Quantity variances for each product within each zip code across years
 - Quantity variances for each product from each reporting entity across years
 - Quantity variances for each product between a county's zip codes and the county (with accounting for geographic overlap)
 - ...

Audit Reporting

- Most data validation stages generate audit reports
 - Reports sent to NYSDEC
 - DEC checks report form images or source electronic data
 - Provide corrections when possible
 - Contact businesses/applicators
 - Corrected data returned to PSUR
 - Apply corrections
 - Back out existing data and run replacement reports

Report Validation

- Series of reviews by:
 - PSUR programmers
 - PSUR management
 - DEC pesticide reporting management
 - DEC management
- Reports used in the review process
 - Annual report
 - County totals change report
 - 5 year county totals report

Conclusion

- Continue to refine validation process
- Virtually every year new steps added based on:
 - PSUR or DEC review of the data
 - PSUR's expanded role in the process
 - Run Electronic Service Bureau
 - Redesign of feeder systems (i.e. source of reference data)
 - New PSUR staff bring new insights
 - Data users approved by the HSRB

APPENDIX XIII

REPORTS PRODUCED DURING 2005-2006 ON STUDIES USING OR REFERRING TO INFORMATION IN THE PESTICIDE SALES AND USE DATABASE

Reports from Users of the Database

Steenhuis, T, Richards, B, Walter, MT, Sinkevich, M, Garcia, S, Liu, B, Pacenka, S, Porter, K, Porter, MJ, Barber, A, Reidy, P, Burnell, W. "Surveying Upstate NY Well Water for Pesticide Contamination – Year 1 Final Report to the New York State Department of Environmental Conservation (Task 6A-AMOU157), July 2006.

Research Studies Referring to the Database

Perera, FP, Rauh, V, Whyatt, RM, Tang, D, Tsai, WY, Bernert, JT, Tu, YH, Andrews, H, Barr, DB, Camann, DE, Diaz, D, Dietrich, J, Reyes, A, Kinney, PL. A summary of recent findings on birth outcomes and developmental effects of prenatal ETS, PAH, and pesticide exposures. *Neurotoxicology* 26:573-87, 2005.

Rauh, VA, Garfinkel, R, Perera, FP, Andrews, HF, Hoepner, L, Barr, DB, Whitehead, R, Tang, D, Whyatt, RW. Impact of Prenatal Chlorpyrifos Exposure on Neurodevelopment in the First 3 Years of Life Among Inner-City Children. *Pediatrics*. 2006 Nov 20; [Epub ahead of print]

Whyatt, RM, Camann, D, Perera, FP, Rauh, VA, Tang, D, Kinney, PL, Garfinkel, R, Andrews, H, Hoepner, L, Barr, DB. Biomarkers in assessing residential insecticide exposures during pregnancy and effects on fetal growth. *Toxicol. Appl. Pharmacol.* 206:246-54, 2005.