

Proposed Short List with Biosketches for the
Scientific and Technological Achievement Awards Subcommittee
April 2, 2003

DR. VINCENT C. ANIGBOGU is Associate Professor of Analytical Chemistry, and Quality Assurance Officer for the Analytical Services Laboratory at Clark Atlanta University, Atlanta, GA. In the last two years he has reviewed manuscripts/grants for Analytical Chemistry; the International Science and Technology Center, Moscow and Science and Technology Center, Kiev; Journal of Pharmaceutical and Biomedical Analysis; and Environmental, Science and Technology.

Dr. Anigbogu's research interests include development of sensitive, accurate, high precision, and/or cost-effective methodologies for monitoring of metals, inorganics, and organic compounds in the environment. He is also active in training students, State, Federal agencies and industrial employees in the basic concepts of Environmental Chemistry, Environmental Monitoring, ISO 14000 Environmental Management Systems and ISO 9001-2000 Quality Management Systems, Environmental Impact Assessment, and Implementing US NELAC and ISO 17025 based-QA/QC protocols in Analytical Laboratories. His most recent publication is entitled "Enantioseparation of Chiral Organophosphorus Pesticides by Mixed-Mode Electrokinetic Capillary Electrophoresis", International Journal of Environmental Analytical Chemistry, 2003 (in press).

Dr. Anigbogu was a panelist on the NSF Workshop "NSF-RSEC Program: Why and How- A Workshop on Program Objectives, Challenges, and Proposal Preparation", American Chemical Society Meeting, San Francisco, CA, March 25, 2000. He was invited by the National Council on Science and Environment to join a meeting of Council of Deans in May, 2002 with NSF Program Directors to discuss NSF's plans for implementing the recommendation of the National Science Board (NSB-00-22) - "the Foundation should encourage proposals that capitalize on student interest in environmental areas while supporting significantly more environmental education efforts through informal vehicles."

Dr. Anigbogu received his Doctor of Philosophy in Analytical Chemistry from the University Of Alabama, Tuscaloosa in 1986, the Master of Science in Analytical Chemistry from Indiana University Of Pennsylvania, Indiana, PA in 1981, and Bachelor of Science in Chemistry from Indiana University Of Pennsylvania in 1978.

Sources of support include EPA-NAFEO Faculty Development Awards for 2001 and 2002 for joint research with EPA facility in Athens, GA; NIH grant from 1996-1999 to develop methods for chiral drugs analysis; had conducted subcontract work at the Air Logistic Center at Tinker Air Force Base, Oklahoma City, Oklahoma; and Dominion Semiconductor, Manassah, Virginia to conduct ISO 14001 gap analysis and implementation. Has conducted seminar/workshops on "Integrated Quality and Environmental Systems" for foreign countries in Africa.

DR. TIMOTHY J. BUCKLEY is an Assistant Professor of Environmental Health Sciences and Epidemiology at the Johns Hopkins Bloomberg School of Public Health. Dr. Buckley joined the Hopkins faculty in 1996 after five years with the U.S. EPA's National Exposure Research Lab. His research has focused on assessing total human environmental exposure through measurements in multiple environmental media and biomarkers. Over his research career, Dr. Buckley has been responsible for the concept, design, implementation, and management of several major studies involving human exposure to PAHs, metals, VOCs, pesticides, and PCBs through multiple environmental media. These large-scale projects complement laboratory-based studies where controlled exposures are used to more fully investigate relationships between exposure, body burden, and effects.

Dr. Buckley's current research includes community-based exposure assessment, evaluation of chemical treatment to reduce lead bioavailability, the role of exposure to indoor air pollution and allergens in asthma among inner-city children, exposure and effects from mobile source related air pollution, improving methods to assess dermal exposure, and the development and evaluation of exposure biomarkers. While with the U.S. EPA, Dr. Buckley received awards for his role and efforts in the National Human Exposure Assessment Survey (NHEXAS) and the Lower Rio Grande Environmental Exposure Study. His published research was recognized in 1996 with a U.S. EPA Scientific and Technology Achievement Award and again in 1999 by the Walter G. Berl Award given the Johns Hopkins Applied Physics Laboratory.

Dr. Buckley is a certified industrial hygienist and has been elected to leadership positions among his professional associations including chair of the American Industrial Hygiene Association's Biological Monitoring Committee and Academic Counselor of the International Society of Exposure Analysis. Dr. Buckley received his Ph.D. in Environmental Science from Rutgers University and a Masters of Health Science in Industrial Hygiene from the Johns Hopkins Bloomberg School of Public Health.

He is a member of the Science Advisory Board's Integrated Human Exposure Committee.

DR. CALVIN C. CHIEN is currently a Senior Environmental Fellow with DuPont Company, the highest ranking technical environmental professional with the company. He has been the leader of DuPont's Environmental Remediation Technology Development team focused on Environmental Modeling and Subsurface Containment/Treatment Barrier Technologies. Besides the work in the technology area, he also has the responsibility for technical environmental support and oversight for DuPont's operations in the Asia-Pacific Region.

Since 1987, Dr. Chien has been collaborating with a number of universities in the U.S. and Canada on the research in the area of environmental remediation. He is currently working with seven universities, four in the U.S./Canada and three in China.

Dr. Chien served as technical reviewer for papers submitted to Hydraulic Journal of ASCE (Am. Soc. of Civil Engrs.) in late 1970s and early 1980s. He is currently serving a 3-year term on the Science Advisory Committee for EPA Rocky Mountain Regional Hazardous Substance Research Center. The responsibilities, among others, include the review of research proposals

submitted to the center for funding.

Among many awards and honors Dr. Chien has received in his career, he was the recipient of SUNY's 1997 Engineering Achievement Award, university's highest honor for engineering. He was the first winner who was an Asian and also an alumnus in the Award's 20 years of history. Dr. Chien also has received several Awards from DuPont, including three Major Contribution Awards, with significant amount of cash and an Invention Award from Westinghouse Company.

Dr. Chien served on the ASCE Groundwater Management Committee as secretary, then vice president, between 1996 and 1999. He served on the Groundwater Modeling Group of the Chemical Manufacturing Association (CMA, now American Chemistry Council) as a member from 1986 to 1989 and chaired the group from 1989 to 1992.

In 1994, Dr. Chien was appointed a member with the Environmental Engineering Committee (EEC) of the Science Advisory Board (SAB). He served three terms and left the board in 2000. In 1994, he served on a U.S. Department of Energy's (DOE) Outside Technical Peer Review Panel to review the department's modeling strategy and development. He was invited twice by the National Science Foundation to serve on the technical review panel for the research proposals submitted to the foundation for funding in the area of environmental science and technology. He has published several technical articles in the leading peer-reviewed journals and authored many DuPont internal technical research reports. He holds a U.S. patent on well field design technology.

Dr. Chien has served as chair, co-chair, section chair, invited speaker in many conferences and panels dealing with the issues that fall in his area of expertise, mainly, groundwater hydrology, contaminant fate and transport, environmental modeling, soil and groundwater remediation technology, and in-situ solution mining. He has organized and chaired/co-chaired a number of international technical expert workshop and conferences, including the first International Containment Expert Workshop (1995) and Conference (1997), the International Environmental Modeling Expert Workshop (2000) and a Containment Expert Workshop (2002) focusing on the Long-term Performance Prediction and Verification for Containment/treatment Barriers. Dr. Chien was the planner for the well-known book prepared from the 1995 Containment Workshop and the principal editor of book for the 2000 Modeling Workshop. He was the lead editor for the 2002 Containment book, scheduled for publication this summer.

Dr. Chien earned an M.S. E. and a Ph.D. in hydrology and environmental modeling from the State University of New York (SUNY) at Buffalo in 1970 and 1974, respectively. He received his B.S.E. in Hydraulic Engineering from the National Cheng-Kung University in Taiwan.

DR. TIMOTHY J. CONSIDINE is a Professor of Natural Resource Economics in the Department of Energy and Geo-Environmental Engineering at the Pennsylvania State University. Professor Considerine recently finished a sabbatical leave as a Gilbert F. White Postdoctoral Fellow at Resources for the Future. He has a Ph.D. from Cornell University in Natural Resource Economics, an M.S. from Purdue University in Agricultural Economics, and a B.A. with Honors in Economics from Loyola University of Chicago.

His research focuses on microeconomic analysis of energy and materials markets, as well as how those industries interact with the environment. Another area is risk management, such as valuation of information on natural hazards.

Since 1983, he has published in prestigious journals, including Review of Economics and Statistics, Journal of Business and Economic Statistics, and Journal of Environmental Economics and Management. He is currently an associate editor for Energy Economics and member of the American Economics Association, the International Association of Energy Economics, the International Society of Industrial Ecology (ISIE), and the Association of Environmental and Resource Economics. He recently was appointed by the National Research Council as a participating member of the Committee on Bridging Design and Manufacturing.

During his tenure at Penn State, he has been awarded research grants from the National Science Foundation, United States Department of Energy, United States Department of Agriculture, The World Bank, and National Oceanic & Atmospheric Administration. These grants advanced research on: the industrial ecology of steel and particulate materials; the impact of sales from the U.S. Strategic Petroleum Reserves on global crude oil markets; the role of banking in markets for pollution permits; commodity price and inventory dynamics; electricity deregulation in California and Pennsylvania; and the value of improved forecasts of hurricanes to oil and gas producers in the Gulf of Mexico.

Prior to joining Penn State in 1986, he worked at Bank of America and the U.S. Congressional Budget Office. He also held visiting positions in economics at American University in Washington, D.C., as well as at the University of Newcastle, Australia.

DR. DEBORAH CORY-SLECHTA currently serves as Professor in the Department of Environmental Medicine and Director of the NIEHS Environmental Health Sciences Center at the University of Rochester Medical School. Later this year she will be Director of the Environmental and Occupational Health Sciences Institute (University of Medicine and Dentistry of New Jersey and Rutgers University) and Chair, Dept. of Environmental and Community Medicine, University of Medicine and Dentistry of New Jersey, Piscataway, NJ. She received B. S. and M.S. degrees from Western Michigan University in Kalamazoo, MI and her Ph.D. degree from the University of Minnesota in 1977.

Dr. Cory-Slechta is an Associate Editor for the journal NeuroToxicology and serves on the Editorial Boards of the journals Toxicology and Applied Pharmacology, Neurotoxicology and Teratology, and Toxicology. Her past editorial board service included fundamental and Applied Toxicology and the American Journal of Mental Retardation.

Her research has focused largely on environmental neurotoxicants as risk factors for behavioral disorders and neurodegenerative disease. Specifically this has included work on the impact of low level lead exposure on learning and attention and associated the associated neurochemical mechanisms, and, more recently on the role of pesticides as risk factors for Parkinson's Disease, specifically their interactions with other risk factors, including development, aging and genetic background. These research efforts have resulted in over 90 papers and book chapters to date and have been supported by the National Institutes of Health, specifically the National Institute of Environmental Health Sciences.

She has held the elected positions of President of the Neurotoxicology Specialty Section of the Society of Toxicology, President of the Behavioral Toxicology Society, and been named a Fellow of the American Psychological Association. Dr. Cory-Slechta has served on numerous national research review and advisory panels, including committees of the National Institutes of Health, the National Institute of Environmental Health Sciences (National Advisory Environmental Health Sciences Council), the Food and Drug Administration, the National Center for Toxicological Research, the Environmental Protection Agency, the National Academy of Sciences, the Institute of Medicine, and the Agency for Toxic Substances and Disease Registry, Centers for Disease Control.

She is a member of the Science Advisory Board's Environmental Health Committee.

DR. RICHARD THOMAS DI GIULIO is a Professor with the Nicholas School of the Environment & Earth Sciences at Duke University and Director of the University's Integrated Toxicology Program and its Superfund Basic Research Center.

Dr. Di Giulio currently serve on editorial boards for Toxicological Sciences and for Human and Ecological Risk Assessment. He has previously served on boards for Chemosphere (1999 - 2002), Environmental Health Perspectives (1993-2000), Ecotoxicology (1991 - 2000), and Environmental Toxicology and Chemistry (1987-1990 and 1994-1996). In addition to editorial service with those journals, in last 3 years he has reviewed papers for Aquatic Toxicology, Archives of Environmental Toxicology and Chemistry, Biomarkers, Chemico-Biological Interactions, Comparative Biochemistry and Physiology, Ecological Applications, Journal of Toxicology and Environmental Health, Marine Biology, Marine Environmental Research, and Toxicological Pathology.

Dr. Di Giulio's research is focused upon biochemical and cellular responses of aquatic animals to environmental stressors, particularly contaminants. His laboratory is concerned with both basic studies of mechanisms of contaminant metabolism, adaptation and toxicity, and with the development of sensitive, mechanistically-based indices of exposure and toxicity that can be used in biomonitoring of free-living organisms. The long-term goal of this research is to bridge the gap between fundamental toxicological research and the development of mechanism-based approaches for monitoring environmental health. He seeks to utilize the comparative biology paradigm to elucidate linkages between human and ecosystem health.

Recent grant support for his research has been provided by EPA, NIEHS and the Office of Naval Research. He has consulted extensively on issues concerning contaminated sediments,

water quality, and human carcinogens.

Dr. Di Giulio served on the Board of Directors for the Society of environmental Toxicology and Chemistry (SETAC), and Chaired the Membership Committee. He was also a member of the SETAC 19th Annual Meeting Program Committee and Chair of the Plenary Session. He is also a member of the editorial boards of Toxicological Sciences and Human and Ecological Risk Assessment.

He received his Ph.D., from Virginia Polytechnic Institute and State University in 1982.

DR. BRENDLYN D. FAISON is a microbiologist in the Office of Biological and Environmental Research, US Department of Energy (DOE), where she serves as Technical Program Manager within a bioremediation research program. Within this program, she manages two key science elements encompassing 27 projects. These research activities are carried out at government or academic institutions in the US and Canada. She also manages a bioscience element within another DOE environmental management program, plus a program involving external small-business research activities related to environmental restoration science. Dr. Faison is on an inter-governmental personnel assignment from Hampton University, where she is an associate professor who teaches microbiology-related courses at the under graduate and graduate level. Her work at Hampton has resulted in development of teaching modules for communication of environmental- and life-science concepts (including the importance of waste management) to physical scientists and engineers. This curriculum was prepared for NASA's astrobiology program and is now in use.

Dr. Faison serves on the editorial board of the World Journal of Microbiology and Biotechnology. She has also acted as reviewer ad hoc, since 1992, for nine US or international journals.

Dr. Faison's hands-on technical interests are in industrial microbiology and bioprocess development, specializing in (a) biotechnology for environmental control and remediation; (b) bioprocessing for production of bulk or specialty chemicals; or (c) bioterrorism preparedness and response, with particular reference to decontamination practice. Her intellectual interests include evolutionary developmental microbiology (with an emphasis on ecological relationships) and environmental science policy.

Dr. Faison has chaired the Society for Industrial Microbiology (SIM)'s Policy and Public Responsibility Committee since 1999. She served as contributing editor for SIM News from 1999 through 2002, sat on the SIM Board of Directors from 1997 through 2002, and is still a member of various SIM committees. She has served on education and communications committees (and once published a newsletter) for the American Society for Microbiology since 1992. She is a member of the American Academy for Microbiology's nominating committee. She is a fellow of the American Academy for Microbiology.

Dr. Faison has 23 publications in the peer-reviewed literature, including original contributions, book chapters, and encyclopedia articles; all relate to waste management and environmental restoration. She holds four patents and invention disclosures.

Dr. Faison's Ph.D. (bacteriology) was granted by the University of Wisconsin. Her master's degree (applied biological sciences) is from the Massachusetts Institute of Technology and her bachelor's degree (biological sciences) was obtained from Wellesley College.

Recent support has been provided by DOE and NASA.

DR. RICHARD O. GILBERT is Staff Scientist at the Pacific Northwest National Laboratory; he is retired and working hourly.. He received his B.S. in Science Teaching from Ferris State University in 1963, an M.S. in Statistics from Kansas State University in 1965, and a Ph.D. in Biomathematics from the University of Washington in 1969.

Dr. Gilbert served on the editorial board of Environmental and Ecological Statistics and as an Associate Editor of Environmetrics.

His research interests include the application of sampling designs and statistical analysis methods for environmental studies, systematic planning for environmental contaminant studies, development of software for using systematic planning to develop statistical sampling designs, and teaching environmental statistics and systematic planning (short courses).

Dr. Gilbert wrote the book "Statistical Methods for Environmental Pollution Monitoring", 1987; more than 20,000 copies have been sold. He is the author of 3 book chapters and 30 peer reviewed papers and a Fellow of the American Statistical Association. He was awarded the Distinguished Achievement Medal from Section on Statistics and the Environment, American Statistical Association (ASA). He was elected a Regular Member of the International Statistics Institute and chair of Section on Statistics and the Environment, ASA, 1995

Dr. Gilbert's work at Battelle is supported by contracts from U.S. Environmental Protection Agency (Office of Solid Waste, Environmental Information Office) , Department of Energy (EM-5) and the Department of Defense (SERDP and US Navy)

DR. JOHN M. GOWDY is Professor of Economics and Director of the Ph.D. Program in Ecological Economics in the Department of Economics at Rensselaer Polytechnic Institute, Troy, New York.

Dr. Gowdy has been a member of the editorial boards of Ecological Economics (since 1994), Environmental Ethics (term for 1995-2005), Environmental Science and Policy (term for March 2001-March 2004), Government and Policy: Environment and Planning C (since 2000), International Journal of Agricultural Resources, Governance and Ecology (since 1999), International Journal of Global Environmental Issues (since 1998) Structural Change and Economic Dynamics (since 1997), Encyclopedia of Life Support Systems. He is a member of Editorial Advisory Board and Theme Editor for "Economic Interactions with Other Disciplines"

Dr. Gowdy's current research interests are in the area of ecological economics including economic valuation of biodiversity and environmental theory and policy, economic anthropology, input-output analysis of energy and resource use, vertically integrated productivity

measures, evolutionary models of economic change, regional sustainable economic development using Social Accounting Matrices.

Dr. Gowdy is currently the President of the U.S. Society for Ecological Economics (2002-2003). He has published over 80 papers in peer reviewed journals and 30 papers in edited books and encyclopedias. He has authored or co-authored three books and edited or co-edited five books. These include: *Paradise For Sale: A Parable of Nature*, University of California Press, January 2000 (with Carl McDaniel), *Limited Wants, Infinite Means: A Reader on Hunter-Gatherer Economics and the Environment*, Island Press, 1998, "The Value of Biodiversity: Markets, Society, and Ecosystems" *Land Economics* 73(1), February 1997, 25-41. Reprinted in *Ecosystems and Nature*, R. Kerry Turner, editor, Edward Elgar, London, 2000, "Biology and Economics," *Structural Change and Economic Dynamics* 8(4), Introduction to special issue on biology and economics that I edited, October 1997, 377-384, "Toward Consilience between Biology and Economics: The Contribution of Ecological Economics," *Ecological Economics* 29 (3), 337-348, June 1999 (with Ada Ferrer Carbonell), "Weak versus Strong Sustainability: Economics, Natural Science and 'Consilience'," (With Robert U. Ayres and Jeroen van den Bergh) *Environmental Ethics* 23(2), 2001, 155-168, "The Microfoundations of Macroeconomics: An Evolutionary Perspective," *Cambridge Journal of Economics* 27(1), 65-84, 2003 (with Jeroen van den Bergh), "Fairness and Retaliation in a Rural Nigerian Village," *The Journal of Economic Behavior and Organization* (with Steve Onyeiwu and Raluca Iorgulescu) forthcoming 2003.

Dr. Gowdy was awarded a Ph.D. and M.A. in Economics from West Virginia University, a M.C.P. in Community Planning from the University of Rhode Island, and a B.A. in Anthropology from American University.

His current research is funded by the National Science Foundation and Hudson River Foundation.

DR. JOSEPH R. LANDOLPH is currently Associate Professor of Molecular Microbiology and Immunology and Pathology and a Member of the USC/Norris Comprehensive Cancer Center, in the Keck School of Medicine, and Associate Professor of Molecular Pharmacology and Toxicology, in the School of Pharmacy, with tenure, at the University of Southern California (USC) in Los Angeles, California. Dr. Landolph has previously served as a member of the editorial boards of the peer-reviewed journals, *Environmental and Molecular Mutagenesis* (1987-1994) and *Cancer Biochemistry Biophysics* from (1985-1995).

Dr. Landolph's research interests include studies of the genetic toxicology and carcinogenicity of specific insoluble nickel compounds, hexavalent carcinogenic chromium compounds, carcinogenic arsenic compounds, and carcinogenic polycyclic aromatic hydrocarbons. His laboratory is studying the ability of these carcinogens to induce morphological and neoplastic transformation of C3H/10T1/2 mouse embryo cells and the cellular and molecular biology of the transformation process. He is currently studying the ability of carcinogenic nickel compounds to induce activation of expression of oncogenes and inactivation of expression of tumor suppressor genes in cells transformed by insoluble carcinogenic nickel compounds, such as nickel subsulfide, crystalline nickel monosulfide, and green (high temperature) and

black (low temperature) nickel oxides. His laboratory also studies the molecular biology of chromium compound-induced cell transformation and the role of valence of chromium in cell transformation induced by various chromium-containing compounds.

Dr. Landolph has held leadership positions in a number of peer-review panels in the areas of carcinogenesis and human health effects. These include his having been a member of the Carcinogen Identification Committee reporting to the Scientific Advisory Committee of the Office of Environmental Health Hazard Assessment of the California Protection Agency (EPA) from 1994-Present, a member of the Panel on Toxic Air Contaminants of the California EPA, from 2003-Present, and a member of the Scientific Advisory Panel of the U. S. Environmental Protection Agency from 2002 - Present. He is the recipient of numerous awards, including the Merck Award in Chemistry from Drexel University in 1971, an American Cancer Society Postdoctoral Fellowship from the American Cancer Society from 1977-1979, the Edmundson Teaching Award from the Dept. of Pathology at USC in 1985, and a Traveling Lectureship Award from the U. S. Society of Toxicology in 1990.

Dr. Landolph has also served as peer-reviewer for grant panels for the U. S. E. P. A. Health Effects Panel, for special RFAs for the N. I. E. H. S., and as an ad hoc member for the Chemical Pathology Study Section and the AL-Tox-4 Study Section of the National Institutes of Health.

Dr. Landolph received a B. S degree in Chemistry from Drexel University in 1971, and a Ph. D. degree in Chemistry from the University of California at Berkeley in 1976, under the guidance of the late Professor Melvin Calvin. He also received postdoctoral training in chemical carcinogenesis and mutagenesis under the late Professor Charles Heidelberger at the USC Comprehensive Cancer Center at the University of Southern California.

Dr. Landolph is the author of 34 peer-reviewed scientific publications and 21 book chapters/review articles in the areas of chemically induced morphological and neoplastic transformation and chemically induced mutation of cultured murine and human. He has held peer-reviewed research grant support from the U. S. E. P. A., the U. S. National Cancer Institute, the U. S. Institute of Environmental Health Sciences, and the Nickel Producers Environmental Research Association. He is a member of the Science Advisory Board's Drinking Water Committee.

DR. GUY R. LANZA is Professor of Microbiology and Director of the Environmental Sciences Program at the University of Massachusetts, Amherst. He obtained his BS from Fairleigh Dickinson University in 1961; a MS from the University of Kentucky in 1969; and a PhD from Virginia Polytechnic Institute and State University in 1972.

Dr. Lanza's research interests include environmental microbiology, ecosystem restoration/bioremediation, environmental toxicology, aquatic ecology, water quality, ecology of waterborne infectious disease, innovative curriculum in the environmental sciences.

Dr. Lanza chaired the Expert Group on Environmental Quality for the Organization for Economic Cooperation and Development (OECD) in Paris, 1980-82. He served as a Foundation

for Microbiology Lecturer (ASM) 1991-94; as an US EPA External Review Panel-Ecology, site visit member (5 sites), 1990-93; and also as an US EPA Peer Review Panel-Environmental Biology, 1986- 2000. He was a University of Massachusetts Community Service Learning Fellow from 1996-97 and is a Fellow of the American Academy of Microbiology.

Dr. Lanza serves on the American Society for Microbiology Lecturers Committee. He was Founding Editor and Editor-in Chief, International Journal of Phytoremediation, CRC Press from 1998-2002. He is Senior Science Editor for the International Journal of Phytoremediation, 2002-present and served on the Editorial Board of the Journal of Environmental Toxicology and Water Quality from 1991-95. He was an Expert Witness for the US Department of Justice, Environment and Natural Resources Division, (Everglades National Park Preservation and Restoration) from 1990-97.

Dr. Lanza's research has been supported by the US Environmental Protection Agency, the US Department of the Interior, the W.K. Kellogg Foundation, the Massachusetts Executive Office of Environmental Affairs, the Massachusetts Department of Environmental Management, and private donors and is the basis for more than sixty book chapters, refereed journal articles, technical reports, and scientific commentaries/editorials.

DR. JOHN P. MANEY is president of Environmental Measurements Assessment (EMA), a consulting company that focuses on sampling, analytical and quality issues. He provides consulting services on sampling, analysis and data quality issues to private and public sector clients. He received his Ph.D. in Analytical Chemistry from the University of Rhode Island, Kingston, Rhode Island.

Dr. Maney was on the Editorial Board of Environmental Testing and Analysis for a decade. (Most, but not all, articles published in this journal were peer reviewed. Others were included based on the judgement of the editor alone.) He has been a peer-reviewer for ASTM publications.

Dr. Maney has over 30 years experience in analytical chemistry and over 20 years experience in environmental sampling, environmental analysis and data quality issues. He has directed and founded environmental testing laboratories, managed numerous government contracts and subcontracts, which have addressed among other issues, analytical method development, analytical method validation, hazardous waste sampling, and authoring of guidance.

Dr. Maney has chaired and participated in the consensus standard process for USEPA/ASTM accelerated standards regarding sampling, subsampling and data quality.

In 2001, Dr. Maney was presented with the USEPA's "Oliver Fordham Furthering Science in the Field Award".

DR. MICHAEL C. NEWMAN received degrees in zoology from the University of Connecticut (B.A., M.S.) and environmental sciences from Rutgers University (M.S., Ph.D.). After his postdoctoral studies, he was a research ecologist at the University of Georgia's Savannah River Ecology laboratory. He now holds a Professor of Marine Science position at the College of William and Mary's School of Marine Science after ending a three-year term as Dean of Graduate Studies of the School of Marine Science.

His research emphasizes quantitative methods in ecotoxicology with topics of interest ranging from chemical measurement statistics to QSAR-like models for predicting metal ion effects to contaminant effects on population genetics to methods of predicting community level effects.

He has authored approximately 100 publications on these topics including four books, *Quantitative Methods in Aquatic Ecotoxicology*, *Fundamentals of Ecotoxicology*, *Population Ecotoxicology* and *Community Ecotoxicology*. He also edited several books, *Metal Ecotoxicology*, *Hierarchical Ecotoxicology*, *Risk Assessment: Logic and Measurement*, *Coastal and Estuarine Risk Assessment*, and *Risk Assessment with Time-to-Event Models*.

Dr. Newman is active in advisory service. He served on OECD, EPA, DOE, NAS, and state environmental regulatory and risk assessment committees and panels. He was one of two U.S. members of an OECD team charged with assessing statistical methods for analyzing toxicity data. Work with DOE involved complex-wide consideration of data quality objectives for risk assessment activities, and various site-specific advisory services to the Savannah River and Hanford sites. He has been a member of numerous EPA teams including the FIFRA ECOFRAM working group, two FIFRA science advisory panels, the Chesapeake Bay Office science advisory board, a FQPA scientific review board, and a joint U.S. EPA-Israeli Water Agency working group. He has reviewed numerous risk assessment documents for EPA and was a consultant to the NAS (Everglades Ecosystem Assessment). He continues to work actively with various Virginia Department of Environmental Quality teams and panels. He is a member of the Science Advisory Board's Ecological Processes and Effects Committee.

DR. FREDERICK G. POHLAND is Professor and Edward R. Weidlein Chair of Environmental Engineering, Director of the Dominion Center for Environment and Energy, and Co-Director of the Groundwater Remediation Technologies Analysis Center at the University of Pittsburgh. Dr. Pohland received his B.S. in Civil Engineering from Valparaiso University and the M.S. and Ph.D. in Sanitary/Environmental Engineering at Purdue University.

Dr. Pohland has been a frequent contributor to the literature, with over 150 technical and scientific publications, many of which have focused on anaerobic digestion, solid and hazardous waste management, environmental impact assessment, and innovative technologies for waste minimization, treatment and environmental remediation. Recent support has been provided by EPA, DOE, the Pennsylvania Department of Environmental Protection and the Dominion Foundation.

Dr. Pohland is a Fellow and Life Member of the American Society of Civil Engineers (ASCE), and a registered Professional Engineer. Dr. Pohland is also a Diplomate in the

American Academy of Environmental Engineers (AAEE), having previously served as President, Trustee, and AAEE delegate to the Board of Directors of the Accreditation Board for Engineering and Technology (ABET), where he also served as a member of the Engineering Accreditation Commission. He has served on the Governing Board of the International Water Association (IWA), as Honorary Executive Editor and Regional Editor of the IWA Journal, WATER RESEARCH, and originated and chaired the IWA Specialist Group on Anaerobic Digestion and the IWA Specialist Group on Landfill Management of Solid Wastes. Dr. Pohland also has been active in the Water Environment Federation (WEF), where he served on the Board of Control and was Chair of the Program Committee. Other memberships include the American Chemical Society, American Institute of Chemical Engineers, American Society for Microbiology, American Water Works Association, Association of Environmental Engineering and Science Professors, Solid Waste Association of North America, National Society of Professional Engineers, and the Society for Industrial Microbiology.

In 1993, Dr. Pohland was elected to the National Academy of Engineering. He is a Fellow of the American Academy of Microbiology and an Honorary Member of the Water Environment Federation. In 2000, he received the AAEE Gordon Maskew Fair Award and Honorary Membership in the International Water Association, and was the ASCE Simon Freeze Memorial Lecturer for 2001.

DR. WILLIAM H. SMITH is the Clifton R. Musser Professor Emeritus of Forest Biology at Yale University. Prof. Smith joined the Yale faculty in 1966 and retired in 2001. He received his Masters Degree from Yale University in forest ecology and his PhD from Rutgers in plant physiology and soil microbiology.

Dr. Smith's research interests included all aspects of forest ecosystem health including ecotoxicology (effects of air pollutants), pathological and entomological stressors, ecological risk assessment and ecosystem health monitoring. Prof. Smith is the author of three books, 25 book chapters, 35 special documents and over 80 technical journal articles. Dr. Smith has served as a reviewer for many journals including: ES&T, Science, Ecology, Plant and Soil, Environmental Management, Ecological Applications, and the Journal of Forestry.

From 1985 to 2001 Prof. Smith held an appointment to the State of Connecticut Siting Council. This Council regulates the design and Statewide site selection for (1) power stations, electric generating facilities, (2) electric and gas transmission infrastructure, (3) utility, commercial and State-owned telecommunications towers, and (4) hazardous waste storage, treatment and transport facilities and low-level nuclear waste disposal facilities.

Prof. Smith presently resides in Moultonborough, New Hampshire and during 2002 served as a Senior Ecologist with the New Hampshire Department of Environmental Services to develop a new Sediment Policy for the State and to perform ecological risk assessments primarily on Superfund sites. In January 2003 Prof. Smith joined the adjunct faculty at Southern New Hampshire University and offer a graduate course in environmental issues.

In addition, Prof. Smith currently serves as the President of the Lake Kanasatka Watershed Association and serves on the Board of Directors of the Lakes Region Conservation

Trust (a regional land trust), the New Hampshire Lakes Association (a lakes advocacy organization) and the Jordan Institute (organization focused on environmental health issues).

At this time Dr. Smith has no grant or contract support.

He is a member of the Science Advisory Board's Executive Committee.

MR. DOUGLAS E. SPLITSTONE is Principal of Splitstone & Associates and has more than 30 years of experience in the application of statistical tools to the solution of environmental problems. He has provided statistical consulting services, including litigation support, to private and public sector clients throughout the U. S. and Canada. He has designed data collection programs to investigate potential environmental impacts in air, water, and soil. Mr. Splitstone has conducted statistical analyses of data related to the extent of site contamination and remedial planning, industrial wastewater discharges, and the dispersion of airborne contaminants. He is experienced in the investigation of radiological as well as chemical analytes. Mr. Splitstone has served as an expert witness in environmental litigation.

Mr. Splitstone is a recognized expert in the application of statistical techniques for the investigation and solution of environmental problems. He has served as a member of the Task Group on Epidemiology and Statistical Methodology for the USEPA's Center for Environmental Epidemiology at the University of Pittsburgh's Graduate School of Public Health; and, a member of the Peer Review Group, Salt Host-Rock Portion of the DOE's Civilian Radioactive Waste Management Program for Argonne National Laboratory.

Mr. Splitstone is a member of the American Statistical Association (ASA) and is a founder and past chairman of that organization's Committee on Statistics and the Environment. He was awarded the Distinguished Achievement Medal by the ASA's Section on Statistics and the Environment in 1993. His invited participation in the 1994 workshop on Ethical Issues in Statistics in Expert Testimony reflects his long standing interest in the interface between science and the law. This workshop conducted by the ASA was sponsored by the National Science Foundation (NSF) as part of the NSF Ethics and Values Studies program.

Mr. Splitstone also holds membership in Air and Waste Management Association, and the American Society for Quality Control. He has served as a technical reviewer for Atmospheric Environment; the Journal of Official Statistics, a statistics publication in Sweden; and Environmental Science and Technology. He has also conducted contract peer review in support of Public Works Canada of the statistical elements of the environmental assessment of Sydney, Nova Scotia. Mr. Splitstone was also a contributing author for Statistics and the Law, published by John Wiley and Sons and an Editorial Collaborator for the Journal of Environmental and Ecological Statistics. Mr. Splitstone received his M.S. in Mathematical Statistics from Iowa State University in 1967.

DR. THOMAS L. THEIS is Professor of Civil and Materials Engineering and Director of the Institute for Environmental Science and Policy at UIC, a center that focuses on the development of new cross-disciplinary research initiatives in the environmental area. He was most recently at Clarkson University, where he was the Bayard D. Clarkson Professor and Director of the Center for Environmental Management. Professor Theis received his doctoral degree in environmental engineering, with a specialization in environmental chemistry, from the University of Notre Dame.

Professor Theis' areas of expertise include the mathematical modeling and systems analysis of environmental processes, the environmental chemistry of trace organic and inorganic substances, interfacial reactions, subsurface contaminant transport, hazardous waste management, industrial pollution prevention, and industrial ecology. He has been principal or co-principal investigator on over forty funded research projects (from EPA, NSF, DOE, DOI, and several state and private sources) totaling in excess of eight million dollars, and has authored or co-authored over one hundred papers in peer reviewed research journals, books, and reports.

Dr. Theis is past editor of the Journal of Environmental Engineering, and serves on the editorial boards of The Journal of Contaminant Transport, and Issues in Environmental Science and Technology. In 1989 he was an invited participant on the United Nations' Scientific Committee on Problems in the Environment (SCOPE) Workshop on Groundwater Contamination, and in 1998 he was invited to by the World Bank to assist in the development of the first environmental engineering program in Argentina. Among his current projects is the Environmental Manufacturing Management Program, one of the Integrative Graduate Education Research and Training (IGERT) grants of the National Science Foundation, which involves research on industrial pollution prevention problems emphasizing a systems approach.

He is a member of the Science Advisory Board's Environmental Engineering Committee.

DR. GARY A. TORANZOS is a professor of microbiology in the Department of Biology, University of Puerto Rico, Rio Piedras Campus. He got his Ph.D. in 1985 at the University of Arizona in Tucson. His research interests are varied and include water microbiology, the ecology of enteric pathogens and the development of indicators of risk. He has published extensively on all the above subjects and is currently working on projects dealing with bacterial nitrification and denitrification in soils, as well as development of new indicators of biological contamination in waters.

He is currently working at the National Science Foundation as a Program Director in the Division of Molecular and Cellular Biosciences.

He is an elected member of the American Academy of Microbiology, a Fellow of the American Association for the Advancement of Science and is serving a term as member of the Technical Advisory Board of the Water Environment Research Foundation.

He is a member of the Science Advisory Board's Drinking Water Committee.

DR. MICHAEL L. TREHY is a chemist in the technology group of Solutia Incorporated's Functional Solutions Division. His current work assignment is to develop new products. This work has focused on developing biodegradable chelants. Dr. Trehy obtained his bachelor of science degree from Eckerd College, his Master of Science degree at Florida Atlantic working under the direction of Ted Bieber on chlorination by-products in drinking water and his Ph.D. in chemistry from the University of Florida under the direction of Rick Yost on applications of GC/MS/MS.

Past work assignments include review of new products for environmental issues, waste water treatment, chlorination by-products in drinking water, methods development for analyzing for trace components in the environment and the fate of surfactants such as linear alkylbenzene sulfonate in the environment.

Dr. Trehy is active in the American Chemical Society. He served as Treasurer for Environmental Chemistry Division (2002-2003), Member-At-Large Environmental Chemistry Division in 2001, Program Chair Environmental Chemistry Division in 2000, Member-At-Large Environmental Chemistry Division (1999), Alternate Councilor for Environmental Chemistry Division, and Member of ACS Committee for Environmental Improvement (CEI)

DR. JUDITH S. WEIS is Professor, Department of Biological Sciences at Rutgers University in Newark NJ. She received her bachelor's degree from Cornell University, and MS and PhD from New York University.

Dr. Weis served on the Editorial Boards of Transactions of the American Fisheries Society and the Bulletin of Environmental Contamination and Toxicology. She is currently Associate Editor of Bulletin of Environmental Contamination and Toxicology (for the area of Aquatic Toxicology, Metals).

Her research has focused on estuarine ecology and ecotoxicology. She has published over 150 refereed papers, focusing mainly on stresses in the marine environment, and their effects on organisms, populations and communities. Particular areas of focus have been effects of metal contaminants on growth, development, and behavior; development of tolerance to contaminants in populations living in contaminated areas; effects of invasive marsh plant species on estuarine ecology and on fate of metal contaminants. Much of her research has been focused on estuaries in the NY/NJ Harbor area.

She has served on the Boards of Directors of the Society of Environmental Toxicology and Chemistry (SETAC) and the American Institute of Biological Sciences (AIBS). She was the Chair of the Biology Section of American Association for the Advancement of Science (AAAS) in 2000, and was the President of AIBS in 2001. She is a fellow of the American Association for the Advancement of Science (AAAS). She has served on advisory committees for the National Oceanic and Atmospheric Administration. She has been a member of the Marine Board of the National Research Council, and currently serves on the National Sea Grant Review Panel. Dr. Weis was a AAAS/American Society of Zoologists Congressional Science Fellow with the Senate Environment and Public Works Committee, and served as a Program Director at the National Science Foundation.

She has been a visiting scientist at EPA, both at the research lab at Gulf Breeze FL and in the Office of Water (Ocean and Coastal Protection Division). Recent grant support has been provided by: US Geological Survey - Water Resources research program; National Science Foundation - Division of Environmental Biology; and Meadowlands Environmental Research Institute. Also received support for research projects in Indonesia from Operation Wallacea.

DR. JUDITH ZELIKOFF is a tenured-associated professor in the Department of Environmental Medicine, New York University School of Medicine. She received her Ph.D. degree in the department of experimental pathology from the Medical School of the University of Medicine and Dentistry of New Jersey in 1982.

Dr. Zelikoff has served as Editor or on the Editorial Board of a number of toxicological journals and books. She currently serves as Associate Editor for "Biomarkers" and "Journal of Toxicology and Environmental Health". She also serves on the Editorial Board of: Toxicology and Applied Pharmacology; Toxicology; Aquatic Toxicology; Fish and Shellfish Immunology; and, Diseases of Aquatic Organisms. Dr. Zelikoff has also edited and/or co-edited seven books.

Her research interests are in the areas of Immunotoxicology, particularly associated with pulmonary immune defenses and alterations of host resistance against infectious agents by inhaled metal and/or gaseous toxicants. She is also involved in ecoimmunotoxicology and the development of alternate species (i.e., fish) for studying immunotoxicity in higher vertebrates. Other research in fish focuses on the development of immune biomarkers/bioindicators for assessing environmental contamination.

Dr. Zelikoff has assumed a number of leadership roles, particularly for the Society of Toxicology. She currently serves (or has served) on the Education Committee, Sub-committee for Minority Initiatives (chair, 2003 - 2004), Continuing Education Committee (chair, 1999-2000), and Program Committee for SOT. Regarding the SOT Immunotoxicology Specialty Section, Dr. Zelikoff has served as both president and secretary/treasurer. Dr. Zelikoff also serves as president of the Metals Specialty Section (2003 - 2004). In addition to chairing and/or organizing a number of national/international meetings, she currently serves on the NRC Committee for Spacecraft Water Guidelines.

Dr. Zelikoff has served as a grant reviewer for NIH, EPA, National Sea Grants, Research Grants for Canada, Philip Morris, and IFS Grants for Developing Nations. She has a number of active research programs and is currently supported financially by both Federal and Private Funding Agencies including: DOD, NIH, NIOSH, EPA, and Philip Morris.