



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460**

**OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD**

January 13, 2014

EPA-SAB-14-002

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

**Subject: SAB Recommendations for EPA's FY2013 Scientific and Technological
Achievement Awards**

Dear Administrator McCarthy:

The EPA Science Advisory Board (SAB) is pleased to transmit its recommendations for the EPA's FY 2013 Scientific and Technological Achievement Awards (STAA). The STAA program was established by the agency in 1980 to recognize EPA employees who have made outstanding contributions to the advancement of science and technology through their publications in peer-reviewed literature or books. The SAB has been asked by EPA's Office of Research and Development to review EPA's nominated scientific publications and make recommendations for awards. We are pleased to continue to play an important role in the STAA program.

This year, the EPA submitted a total of 105 nominations comprised of 166 publications in 14 science and technology categories. Due to budgetary constraints, the SAB was informed that the 2013 STAA competition is for honorary awards with certificates only as no monetary awards will be provided to authors receiving STAA awards in 2013. The SAB excluded two nominations from consideration since they did not meet the eligibility criteria. Of the 103 remaining nominations, the SAB recommends no nominations for Level I, the highest award; 8 for Level II; 27 for Level III, and 38 for Honorable Mention. The SAB's recommendations are provided in the enclosed appendices.

Overall, the SAB commends the agency for its superior research publications. The SAB concludes that the 2013 STAA nominations are of very good quality. However, none of this year's nominations met the strict criteria for the highest level award. The SAB finds that this is not an aberration of the review process, since the same review criteria were applied this year as in previous years and the SAB Committee carefully assessed whether any of the 2013 nominations warranted a Level I award recommendation. There are very few Level I awards granted in any year, and there is precedent for

recommending no Level I awards. The SAB does not find this an issue for concern and assures the EPA that its scientists are doing high quality work that has maximal public and environmental health benefits. To encourage EPA staff to publish high quality scientific research, the SAB recommends that the agency enhance the process for publicizing the criteria for and results of the STAA program both internally throughout EPA and externally throughout the scientific community. The SAB also recommends that the EPA significantly shorten the time between receiving the SAB recommendations for STAA recognition and notifying award recipients. Irrespective of the reason for the lack of Level I awards this year, the SAB concludes that the best way to ensure a steady stream of innovation with high impact for public and environmental health is to continue to make research a top priority for the Agency.

The SAB recommends that EPA consider developing a separate awards program to recognize EPA research no longer eligible for the STAA award program that is demonstrated to have had a significant impact over extended time towards EPA's mission. Based on the SAB's review of the 2013 STAA nominations, it is clear that the EPA is doing important research, and the research nominated for STAA awards represents the best of this research. EPA's *STAA Nomination Procedures and Guidelines* limits nominations for STAA awards to publications within the previous three years. The committee finds that it often takes time between when research is published and when benefits can be fully realized. Such benefits include whether the research has had a significant impact towards EPA's mission, which is one criterion for a STAA award.

The SAB appreciates the agency's implementation of most SAB recommendations from the last several years for improving the nomination procedures and administration of the STAA program. The SAB recommends that the EPA implement the following activities to further strengthen the STAA program and facilitate the SAB review of future STAA nominations:

- Disallow nominations of works published by standards-setting organizations such as the American Society for Testing and Materials International (ASTM).
- Ensure that book chapters or papers that are published in non-traditional sources (e.g., not in established journals) meet the same STAA program standards of peer review as for established journals.
- Ensure that all nominations separately list all publication(s) that were nominated for STAA award over the previous five years, sorted by current year nominated authors.
- Ensure that all nominations comprised of more than one publication include a comprehensive discussion on the link between such publications.
- Ensure that all nominations include relevant supplemental materials that support how the research was conducted, such as information on sample preparation or derivations of equations.
- Ensure that all submitted nomination documents are reproduced in a manner to include decipherable, clear and legible text in the manuscript and associated figures and tables using high-resolution PDF.
- Ensure that the list of nominations includes accurate information on the relative contribution of EPA authors towards each nomination.

The SAB notes that technology is allowing scientists to disseminate their work in different forms than traditional print journals. The SAB encourages the agency's scientists to consider alternative venues such as videos and other non-traditional publication techniques when such techniques allow scientists and engineers to present their work in a clearer or more actionable fashion, or to reach broader audiences. However, these non-traditional publications still will need to be peer reviewed to ensure that the science is credible. In addition, the EPA should ensure that STAA nominations that include work

published through such non-traditional techniques meet the same STAA program standards of peer review required for publications in established journals.

The SAB applauds the EPA's public recognition of the scientific work of EPA scientists and engineers that is published in the peer-reviewed literature. Thank you for providing the SAB with the opportunity to assist the agency with this important program. The SAB looks forward to reviewing the FY 2014 STAA nominations.

Sincerely,

/signed/

Dr. David T. Allen, Chair
EPA Science Advisory Board

/signed/

Dr. George Daston, Chair
SAB Scientific and Technological
Achievement Awards Committee

NOTICE

This report has been written as part of the activities of the EPA Science Advisory Board, a public advisory group providing extramural scientific information and advice to the Administrator and other officials of the Environmental Protection Agency. The Board is structured to provide balanced, expert assessment of scientific matters related to the problems facing the Agency. This report has not been reviewed for approval by the Agency and, hence, the contents of this report do not necessarily represent the views and policies of the Environmental Protection Agency, nor of other agencies in the Executive Branch of the Federal government, nor does mention of trade names or commercial products constitute a recommendation for use. Reports of the EPA Science Advisory Board are posted on the EPA website at <http://www.epa.gov/sab>.

**U.S. Environmental Protection Agency
Science Advisory Board
Scientific and Technological Achievement Awards (STAA) Committee**

CHAIR

Dr. George Daston, Victor Mills Society Research Fellow, Procter & Gamble Company, Cincinnati, OH

MEMBERS

***Dr. Gregory Biddinger**, Managing Director, Natural Land Management, Inc., Houston, TX

Dr. Jerry Campbell, Scientist and Associate Director of the Center for Human Health Assessment, Institute for Chemical Safety Sciences, The Hamner Institutes for Health Science, Research Triangle Park, NC

Dr. Peter Chapman, Principal and Senior Environmental Scientist, Golder Associates Ltd., Vancouver, British Columbia, Canada

Dr. Judith Chow, Nazir and Mary Ansari Chair in Science and Entrepreneurialism, and Research Professor, Division of Atmospheric Sciences, Desert Research Institute, Reno, Nevada

Dr. James R. Clark, Independent Consultant, Edmonds, WA

***Dr. John Giesy**, Professor and Canada Research Chair in Environmental Toxicology, Department of Veterinary Biomedical Sciences and Toxicology Centre, University of Saskatchewan, Saskatchewan, Canada

Dr. Philip K. Hopke, Bayard D. Clarkson Distinguished Professor, Director of the Center for Air Resources Engineering and Science, and Director of the Institute for a Sustainable Environment, Clarkson University, Potsdam, NY

Dr. Arpad Horvath, Professor, Department of Civil and Environmental Engineering, University of California, Berkeley, Berkeley, CA

Dr. Wayne Landis, Professor and Director, Institute of Environmental Toxicology, Huxley College of the Environment, Western Washington University, Bellingham, WA

Dr. Timothy Larson, Professor of Civil and Environmental Engineering and Professor of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA

Dr. Cindy M. Lee, Professor, Department of Environmental Engineering and Earth Sciences, Clemson University, Anderson, SC

Dr. Michael I. Luster, Professor, Department of Community Medicine, School of Medicine, West Virginia University, Morgantown, WV

Dr. James Mihelcic, Professor of Civil and Environmental Engineering, University of South Florida, Tampa, FL

Dr. Fred J. Miller, Independent Consultant, Fred J. Miller and Associates LLC, Cary, NC

Dr. Eileen Murphy, Director of Research and Grants, Ernest Mario School of Pharmacy, Rutgers University, Piscataway, NJ

Dr. Kenneth Portier, Managing Director, Statistics and Evaluation Center, American Cancer Society, Atlanta, GA

Dr. Jay Turner, Associate Professor, Department of Energy, Environmental and Chemical Engineering, Washington University, St. Louis, MO

Dr. Thomas Young, Professor, Department of Civil and Environmental Engineering, University of California, Davis, Davis, CA

Dr. Yousheng Zeng, Managing Partner, Providence Engineering & Environmental Group LLC, Baton Rouge, LA

SCIENCE ADVISORY BOARD STAFF

Mr. Edward Hanlon, Designated Federal Officer, U.S. Environmental Protection Agency, Science Advisory Board Staff, Washington, DC

*Did not participate in development of this report.

**U.S. Environmental Protection Agency
Science Advisory Board**

**U.S. Environmental Protection Agency
Science Advisory Board**

CHAIR

Dr. David T. Allen, Gertz Regents Professor of Chemical Engineering and the Director of the Center for Energy and Environmental Resources, The University of Texas, Austin, TX

MEMBERS

Dr. George Alexeeff, Director, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Oakland, CA

Dr. Pedro Alvarez, Department Chair and George R. Brown Professor of Engineering, Department of Civil & Environmental Engineering, Rice University, Houston, TX

Dr. Joseph Arvai, Svare Chair in Applied Decision Research, Department of Geography, University of Calgary, Calgary, Alberta, Canada

Dr. Thomas Burbacher, Professor, Department of Environmental and Occupational Health Sciences, School of Public Health, University of Washington, Seattle, WA

Dr. Ingrid Burke, Director, Haub School and Ruckelshaus Institute of Environment and Natural Resources, University of Wyoming, Laramie, WY

Dr. Edward T. Carney, Departmental Senior Science Leader and Director of Predictive Toxicology Center, Toxicology & Environmental Research and Consulting, The Dow Chemical Company, Midland, MI

Dr. Terry Daniel, Professor of Psychology and Natural Resources, Department of Psychology, School of Natural Resources, University of Arizona, Tucson, AZ

Dr. George Daston, Victor Mills Society Research Fellow, Global Product Stewardship, The Procter & Gamble Company, Mason, OH

Dr. Costel Denson, Managing Member, Costech Technologies, LLC, Newark, DE

Dr. Otto C. Doering III, Professor, Department of Agricultural Economics, Purdue University, W. Lafayette, IN

Dr. Michael Dourson, President, Toxicology Excellence for Risk Assessment, Cincinnati, OH

Dr. Joel Ducoste, Professor, Department of Civil, Construction, and Environmental Engineering, College of Engineering, North Carolina State University, Raleigh, NC

Dr. David A. Dzombak, Walter J. Blenko, Sr. University Professor and Head of the Department of

Environmental Engineering, Department of Civil and Environmental Engineering, College of Engineering, Carnegie Mellon University, Pittsburgh, PA

Dr. T. Taylor Eighmy, Vice Chancellor for Research and Engagement, University of Tennessee, Knoxville, TN

Dr. Elaine Faustman, Professor and Director, Environmental and Occupational Health Sciences, University of Washington, Seattle, WA

Dr. R. William Field, Professor, Department of Occupational and Environmental Health, and Department of Epidemiology, College of Public Health, University of Iowa, Iowa City, IA

Dr. H. Christopher Frey, Distinguished University Professor, Department of Civil, Construction and Environmental Engineering, College of Engineering, North Carolina State University, Raleigh, NC

Dr. John P. Giesy, Professor and Canada Research Chair, Veterinary Biomedical Sciences and Toxicology Centre, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

Dr. Cynthia M. Harris, Director and Professor, Institute of Public Health, Florida A&M University, Tallahassee, FL

Dr. Robert Johnston, Director of the George Perkins Marsh Institute and Professor, Economics, Clark University, Worcester, MA

Dr. Kimberly L. Jones, Professor and Chair, Department of Civil Engineering, Howard University, Washington, DC

Dr. Catherine Karr, Associate Professor - Pediatrics and Environmental and Occupational Health Sciences and Director - NW Pediatric Environmental Health Specialty Unit, University of Washington, Seattle, WA

Dr. Madhu Khanna, Professor, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, Urbana, IL

Dr. Nancy K. Kim, Senior Executive, Health Research, Inc., Albany, NY

Dr. Francine Laden, Mark and Catherine Winkler Associate Professor of Environmental Epidemiology, Harvard School of Public Health, and Channing Division of Network Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA

Dr. Cecil Lue-Hing, President, Cecil Lue-Hing & Assoc. Inc., Burr Ridge, IL

Dr. Elizabeth Matsui, Associate Professor, Pediatrics, School of Medicine, Johns Hopkins University, Baltimore, MD

Dr. Surabi Menon, Director of Research, ClimateWorks Foundation, San Francisco, CA

Dr. James R. Mihelcic, Professor, Civil and Environmental Engineering, University of South Florida,

Tampa, FL

Dr. Christine Moe, Eugene J. Gangarosa Professor, Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA

Dr. Horace Moo-Young, Dean and Professor, College of Engineering, Computer Science, and Technology, California State University, Los Angeles, CA

Dr. Eileen Murphy, Director of Research and Grants, Ernest Mario School of Pharmacy, Rutgers University, Piscataway, NJ

Dr. James Opaluch, Professor and Chair, Department of Environmental and Natural Resource Economics, College of the Environment and Life Sciences, University of Rhode Island, Kingston, RI

Dr. Duncan Patten, Director, Montana Water Center, and Research Professor, Hydroecology Research Program, Department of Land Resources and Environmental Sciences, Montana State University, Bozeman, MT

Dr. Martin Philbert, Dean and Professor, Environmental Health Sciences, School of Public Health, University of Michigan, Ann Arbor, MI

Dr. Stephen Polasky, Fesler-Lampert Professor of Ecological/Environmental Economics, Department of Applied Economics, University of Minnesota, St. Paul, MN

Dr. Amanda Rodewald, Director of Conservation Science, Cornell Lab of Ornithology and Associate Professor, Department of Natural Resources, Cornell University, Ithaca, NY

Dr. James Sanders, Director and Professor, Skidaway Institute of Oceanography, Savannah, GA

Dr. William Schlesinger, President, Cary Institute of Ecosystem Studies, Millbrook, NY

Dr. Gina Solomon, Deputy Secretary for Science and Health, Office of the Secretary, California Environmental Protection Agency, Sacramento, CA

Dr. Daniel O. Stram, Professor, Department of Preventive Medicine, Division of Biostatistics, University of Southern California, Los Angeles, CA

Dr. Peter S. Thorne, Director, Environmental Health Sciences Research Center and Professor and Head, Department of Occupational and Environmental Health, College of Public Health, University of Iowa, Iowa City, IA

Dr. Paige Tolbert, Professor and Chair, Department of Environmental Health, Rollins School of Public Health, Emory University, Atlanta, GA

Dr. Jeanne VanBriesen, Professor, Department of Civil and Environmental Engineering, Carnegie Mellon University, Pittsburgh, PA

Dr. John Vena, University of Georgia Foundation Professor in Public Health and

Head, Department of Epidemiology and Biostatistics, Georgia Cancer Coalition Distinguished Scholar,
College of Public Health , University of Georgia, Athens, GA

SCIENCE ADVISORY BOARD STAFF

Dr. Angela Nugent, Designated Federal Officer, U.S. Environmental Protection Agency, Science
Advisory Board (1400R), 1200 Pennsylvania Avenue, NW, Washington, DC, Phone: 202-564-2218,
Fax: 202-565-2098, (nugent.angela@epa.gov)

TABLE OF CONTENTS

| | |
|---|------------|
| 1. BACKGROUND | 1 |
| 2. SAB REVIEW PROCEDURE | 2 |
| 3. AWARD RECOMMENDATIONS | 4 |
| 4. ADMINISTRATIVE RECOMMENDATIONS | 6 |
| APPENDIX A - CALL FOR NOMINATIONS FOR THE 2013 STAA PROGRAM..... | A-1 |
| APPENDIX B - NOMINATIONS RECOMMENDED FOR STAA AWARDS | B-1 |

1. BACKGROUND

EPA's Scientific and Technological Achievement Awards program (STAA) was established in 1980 to recognize the agency's scientists and engineers who published their technical work in the peer-reviewed literature. The STAA program is administered and managed by the EPA Office of Research and Development (ORD). Each year, the EPA Science Advisory Board (SAB) has been asked to review the EPA's nominated scientific publications and make recommendations for awards. The SAB was charged to review nominations and provide recommendations for each nomination in consideration of the EPA's criteria for STAA awards. The EPA announced the call for nominations for the 2013 STAA program to senior managers and employees in January 2013 (Appendix A). ORD screened nominations for conformance with EPA's *STAA Nomination Procedures and Guidelines*. The Guidelines describe the award levels, eligibility criteria, and the award criteria. In July 2013, ORD submitted to the SAB Staff Office 105 nominations for 2013 STAA awards in 14 possible science and technology categories.

The EPA's criteria for STAA Program awards are as follows:

- Level I awards are for nominees who have accomplished an exceptionally high-quality research or technological effort. The nomination should recognize the creation or general revision of a scientific or technological principle or procedure, or a highly significant improvement in the value of a device, activity, program, or service to the public. It must be at least of national significance or have high impact on a broad area of science/technology. The nomination must be of far reaching consequences and recognizable as a major scientific/technological achievement within its discipline or field of study.
- Level II awards are for nominees who have accomplished a notably excellent research or technological effort that has qualities and values similar to, but to a lesser degree, than those described under Level I. It must have timely consequences and contribute as an important scientific/technological achievement within its discipline or field of study.
- Level III awards are for nominees who have accomplished an unusually notable research or technological effort. The nomination can be for a substantial revision or modification of a scientific/technological principle or procedure, or an important improvement to the value of a device, activity, program, or service to the public. It must relate to a mission or organizational component of the EPA, or significantly affect a relevant area of science/technology.
- Honorable Mention is for nominations which are noteworthy but which do not warrant a Level I, II or III award. Honorable Mention applies to nominations that: (1) may not quite reach the level described for a Level III award; (2) show a promising area of research that the SAB wants to encourage; or (3) show an area of research that the SAB believes is too preliminary to warrant an award recommendation at this time.

2. SAB REVIEW PROCEDURE

The SAB Staff Office formed a new SAB STAA Committee in 2012 to annually review EPA's STAA nominations. The Committee members were invited to serve for a three-year term. The Committee was formed in accordance with the SAB process as described in the SAB 2002 publication, *Panel Formation Process: Immediate Steps to Improve Policies and Procedures* (EPA-SAB-EC-COM-02-003).

All EPA nominations and nomination evaluation criteria were provided to the SAB Committee in advance of the review meeting. The SAB review consisted of a two-step process: an initial review of each nomination, followed by a Committee discussion of all nominations. The initial review of each nomination was conducted by two or three members. Committee members provided their individual initial ratings of the nominations based on the EPA's award criteria as described in Section 1. The SAB STAA Committee met at a closed meeting on October 21-22, 2013, in Washington, DC. The meeting was closed to the public because the Committee discussions involved personnel matters, including the relative merits of various employees and their respective work, the disclosure of which would be a clearly unwarranted invasion of personal privacy and, therefore, protected from disclosure by section (c)(6) of the Government in the Sunshine Act, 5 U.S.C. 552b(c)(6). Committee members discussed all nominations (see Table 1), and reached consensus on the recommendations for awards. To avoid an appearance of a lack of impartiality, some members were asked to be recused from the Committee deliberations on selected nominations. The Committee also discussed administrative recommendations for improving the STAA nomination process.

Table 1. 2013 STAA Nominations by Topic Category

| Topic | Number of Nominations Submitted to SAB |
|--|---|
| Control Systems and Technology | 2 ^a |
| Ecological Research | 9 |
| Energy and the Environment | 1 |
| Environmental Policy and Decisionmaking Studies | 4 |
| Health Effects Research and Human Health Risk Assessment | 29 |
| Homeland Security | 4 |
| Industry and the Environment | 4 |
| Integrated Risk Assessment | 2 |
| Monitoring and Measurement Methods | 7 |
| Other Environmental Research | 10 |
| Review Articles | 11 ^b |
| Risk Management and Ecosystem Restoration | 3 |
| Sustainability and Innovation | 7 |
| Transport and Fate | 12 |
| TOTAL | 105 |

^a One submitted nomination included a publication from a standards-setting organization. The SAB excluded this nomination because it is difficult to ascribe and ascertain authorship to publications from standards-setting organizations. Please refer to the recommendations for ‘Additional Requirements for the Nomination Form on page 6 of this SAB Report for additional details regarding this issue.

^b One nomination intended that the Committee review a Special Issue publication for consideration of STAA award, but the Special Issue publication was not submitted within the nomination package for review. The SAB excluded this nomination because it did not meet the eligibility requirements (i.e., nomination packages must include the publications that are nominated for award).

3. AWARD RECOMMENDATIONS

Table 2 summarizes the awards by year since 2000, including the recommendations for 2013. For 2013, the Committee recommended no nominations for Level I, the highest award, 8 for Level II, 27 for Level III, and 38 for Honorable Mention. Appendix B lists the recommended awards for Level II and III, and nominations that deserve an Honorable Mention. The final rankings were agreed to by consensus at the STAA Committee meeting on October 21-22, 2013. One award was based upon a yes/no vote by the Committee members. Table 3 summarizes the distribution of 2013 award recommendations among categories.

Table 2. Comparison of Award Recommendations over Time

| Award Level | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Nominations Reviewed | 102 | 126 | 140 | 136 | 146 | 110 | 90 | 140 | 130 | 109 | 121 | 130 | 104 | 103 ^a |
| Level I | 0 | 2 (2%) | 4 (3%) | 7 (5%) | 6 (4%) | 3 (3%) | 5 (6%) | 5 (4%) | 5 (4%) | 3 (3%) | 5 (4%) | 3 (2%) | 4 (4%) | 0 |
| Level II | 5 (5%) | 11 (9%) | 7 (5%) | 18 (13%) | 13 (9%) | 6 (5%) | 11 (12%) | 13 (9%) | 16 (12%) | 22 (20%) | 14 (12%) | 13 (10%) | 10 (10%) | 8 (8%) |
| Level III | 36 (35%) | 29 (23%) | 26 (19%) | 29 (21%) | 32 (22%) | 30 (27%) | 29 (32%) | 37 (26%) | 30 (21%) | 31 (28%) | 42 (35%) | 35 (27%) | 29 (28%) | 27 (26%) |
| Honorable Mention | 20 (20%) | 21 (17%) | 39 (28%) | 33 (24%) | 37 (25%) | 31 (28%) | 26 (29%) | 45 (32%) | 43 (33%) | 25 (23%) | 33 (27%) | 44 (34%) | 36 (35%) | 38 (37%) |
| Not Recommended | 41 (40%) | 63 (50%) | 64 (46%) | | 58 (40%) | 40 (36%) | 19 (21%) | 40 (29%) | 36 (28%) | 28 (26%) | 27 (22%) | 35 (27%) | 25 (24%) | 28 (27%) |

^a Two nominations were considered ineligible for consideration by the SAB (see Table 1 and footnotes to that table).

Table 3. Summary Number of Award Recommendations by Category for FY2013

| Nomination Categories | Total Nominations | Award Levels | | | | Honorable Mention |
|--|-------------------|--------------|----|-----|-------|-------------------|
| | | I | II | III | Total | |
| Control Systems and Technology | 1 | 0 | 0 | 0 | 0 | 0 |
| Ecological Research | 9 | 0 | 1 | 2 | 3 | 4 |
| Energy and the Environment | 1 | 0 | 0 | 0 | 0 | 1 |
| Environmental Policy and Decision making Studies | 4 | 0 | 1 | 0 | 1 | 3 |
| Health Effects Research and Human Health Risk Assessment | 29 | 0 | 2 | 11 | 13 | 6 |
| Homeland Security | 4 | 0 | 0 | 0 | 0 | 2 |
| Industry and the Environment | 4 | 0 | 0 | 1 | 1 | 3 |
| Integrated Risk Assessment | 2 | 0 | 0 | 1 | 1 | 0 |
| Monitoring and Measurement Methods | 7 | 0 | 1 | 2 | 3 | 1 |
| Other Environmental Research | 10 | 0 | 1 | 4 | 5 | 2 |
| Review Articles | 10 | 0 | 1 | 2 | 3 | 3 |
| Risk Management and Ecosystem Restoration | 3 | 0 | 0 | 0 | 0 | 1 |
| Sustainability and Innovation | 7 | 0 | 1 | 2 | 3 | 2 |
| Transport and Fate | 12 | 0 | 0 | 2 | 2 | 9 |
| TOTALS: | 103 | 0 | 8 | 27 | 35 | 38 |

4. ADMINISTRATIVE RECOMMENDATIONS

The SAB appreciates the EPA's implementation of the recommendations from last year's SAB report to the Administrator that improve the nomination process and enhance the integrity of the program. In particular, the SAB concludes that almost all of the 2013 nominations adhered to existing STAA program guidelines.

The SAB has the following recommendations to further strengthen the STAA program in future years:

Additional Requirements for Nomination Form:

- *For each nominated author, separately list all publication(s) from that author that were nominated and the associated outcome for STAA award(s) over the previous five years.* Currently, the STAA nomination form does not require submission of a list of publications that were previously nominated for STAA awards, sorted by the authors of the current nomination. The SAB recommends that this list be required within the submitted nomination, since this information will assist the Committee in assessing the differences between such publications.
- *Disallow submission of nominations from standards-setting organizations that develop standards through a committee process involving an intensive series of peer reviews.* Currently, the Criteria for Eligibility within the STAA Program's Nomination Procedures and Guidelines discourage but do not disallow the nomination of publications by standards-setting organizations such as the American Society for Testing and Materials International (ASTM), which develop standards through an intensive series of peer reviews. As noted in previous SAB recommendations, the EPA should disallow nomination of such publications since it is difficult to ascertain and ascribe authorship contribution.
- *Require that all relevant supplemental materials be included in the nomination package.* Currently, the Criteria for Eligibility within the STAA Program's Nomination Procedures and Guidelines recommend that any supplemental information sent to journals should be included within the nomination; however, the STAA nomination form does not require submission of this supplemental information. This supplemental information frequently provides useful context on the quality and innovativeness of the research (e.g., information on sample preparation or derivations of equations) and the potential consequences of the research within its discipline or field of study. To ensure that nominations include such supplemental information, the STAA nomination form should be revised to require submission of all supplemental information sent to journals by authors of publication(s) included within each nomination. In addition, certain information generated by the authors and referenced in nominated publications that would assist the SAB in understanding the scientific significance of the publication (such as algorithms, or code used to develop statistical computing and graphics programs) should be required to be submitted within the nomination's supplemental information.
- *Ensure that nominated book chapters and papers that are published in non-traditional sources are peer reviewed.* As noted in previous SAB recommendations, the nature and extent of peer review conducted on nominated book chapters is frequently uncertain. The SAB recommends that the EPA revise the STAA eligibility criteria for nominations of book chapters to require that only book chapters that have undergone external peer review arranged by publishers involving

anonymous referees may be nominated for a STAA award. In addition, the EPA should ensure that papers that are published in non-traditional sources (e.g., not in established journals) meet the same STAA program standards of peer review required for publications in established journals.

Assurance of Completeness and Clarity of Nomination Package:

- *Each nomination should discuss the relationship between publications within nominations comprised of multiple publications.* Currently, the STAA nomination form requires that a description be provided of how the nomination's publication(s) differ from the author(s) publication(s) that were previously nominated for STAA award over the last 5 years. However, several nominations for 2013 STAA recognition did not mention or comprehensively discuss the link between subject matter for the different publications submitted as part of a single nomination. The SAB encourages the EPA to ensure that the justifications for nominations comprising more than one publication include a comprehensive discussion on the relationship between publications within such nominations.
- *Review all STAA nominations documents for visual clarity.* Some STAA nomination packages contain text that is unclear and numbers that cannot be differentiated. The EPA should ensure that all submitted nomination documents are reproduced in a manner to include visually decipherable, clear and legible text in the manuscript and associated figures and tables using high-resolution PDF.
- *Provide information on relative contribution of EPA authors towards each nomination.* The EPA should ensure that the list of STAA nominations provided to the SAB contains accurate information regarding the relative contribution of EPA authors towards each nomination.

Timeliness of Issuing STAA Awards:

- *Shorten the time between the EPA's annual receipt of SAB recommendations for STAA recognition and the EPA's notifications to award recipients.* The SAB is concerned that a one-year time lag occurred between EPA's receipt of 2012 SAB recommendations for STAA recognition and EPA's notifications to 2012 STAA award recipients. The SAB recommends that EPA shorten the time between receiving the SAB recommendations for STAA recognition and notifying award recipients.

APPENDIX A - CALL FOR NOMINATIONS FOR THE 2013 STAA PROGRAM

January 29, 2013

MEMORANDUM

SUBJECT: The 2013 Scientific and Technological Achievement Awards (STAA) Program

FROM: Lek G. Kadeli
Principal Deputy Assistant Administrator (8181R)

TO: Assistant Administrators
Associate Administrators
Regional Administrators

It is a pleasure to announce this year's call for nominations for the 2013 Scientific and Technological Achievement Awards (STAA) program. STAA is an Agency-wide competition, judged by the Science Advisory Board (SAB), which recognizes outstanding published scientific and technical papers by the Agency's staff. This year's nominations will be accepted via electronic submission to nominations.STAA@epa.gov.

Attached are (1) nomination procedures and guidelines, (2) review schedule, and (3) nomination form. Official 2013 nomination forms are available for your convenience in MS Word and screen fillable Portable Document Format (PDF) at <http://epa.gov/ncer/staa/>. All nominations must be received no later than midnight ET Thursday, February 28, 2013. Instructions for completion and electronic submission of nomination packages are attached. Should questions arise, please contact Ben Packard at (703) 347-8087 or packard.benjamin@epa.gov.

cc: EPA Science Advisory Board
EPA Program Offices
EPA Regional Offices
ORD Center/Laboratory Directors

Attachments

January 29, 2013

EPA SEEKING APPLICATIONS FOR 2013 STAA AWARDS

MEMORANDUM

SUBJECT: The 2012 Scientific and Technological Achievement Awards (STAA) Program

FROM: Lek G. Kadeli
Principal Deputy Assistant Administrator

TO: All EPA Employees

I am pleased to issue this year's call for nominations for the EPA's prestigious 2012 Scientific and Technological Achievement Awards (STAA). Each year, EPA recognizes outstanding papers written by the Agency's staff and published in scientific and technical journals. STAA is open to all EPA employees. Nominations are judged by the EPA's Science Advisory Board (SAB), and managed by the Office of Research and Development.

Nominations can be submitted in the following categories:

- Control Systems and Technology
- Ecological Research
- Health Effects Research and Human Health Risk Assessment
- Monitoring and Measurement Methods
- Transport and Fate
- Review Articles
- Risk Management and Ecosystem Restoration
- Integrated Risk Assessment
- Environmental Policy and Decision-Making Studies
- Homeland Security
- Industry and the Environment
- Energy and the Environment
- Sustainability and Innovation
- Other Environmental Research

STAA winners are eligible for monetary awards.

This year's nominations will be accepted via electronic submission to nominations.STAA@epa.gov. You can find the nomination forms and guidelines and additional information about the STAA program at www.epa.gov/ncer/staa/. Nominations will be accepted until midnight ET on Thursday, February 28, 2013. Should questions arise, please contact Ben Packard at (703) 347-8087 or packard.benjamin@epa.gov.

APPENDIX B - NOMINATIONS RECOMMENDED FOR STAA AWARDS

Note: The percentages given after each name represent the percent of the total level of effort as documented in the EPA nomination.

| |
|--|
| Nominations Recommended for a Level I Award -- None |
|--|

| Nominations Recommended for a Level II Award -- Total of 8 | | |
|---|---|---|
| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
| S13EP0007 | Global Air Quality and Health Co-Benefits of Mitigating Near-Term Climate Change through Methane and Black Carbon Emission Controls | Dr. Anenberg, Susan (64%) OAR |
| S13ER0010 | (1) Effects of Copper, Cadmium, Lead, and Arsenic in a Live Diet on Juvenile Fish Growth (2) The Relative Importance of Waterborne and Dietborne Arsenic Exposures on Survival and Growth of Juvenile Rainbow Trout | Dr. Erikson, Russell J. (15%) Dr. Mount, David R. (15%) Ms. Highland, Terry L. (15%) Mr. Hockett, James R. (15%) Ms. Jenson, Correne T. (10%) Mr. Mattson, Vincent R. (10%) Mr. Leonard, Edward N. (10%) NHEERL |
| S13HE0022 | Controlled Exposure of Healthy Young Volunteers to Ozone Causes Cardiovascular Effects | Dr. Devlin, Robert B. (35%) Dr. Diaz-Sanchez, David (20%) Mr. Schmitt, Michael T. (15%) Dr. Rappold, Ana G. (10%) NHEERL |
| S13HE0030 | (1) TRPA1 and Sympathetic Activation Contribute to Increased Risk of Triggered Cardiac Arrhythmias in Hypertensive Rats Exposed to Diesel Exhaust (2) Divergent Electrocardiographic Responses to Whole and Particle-free Diesel Exhaust Inhalation in Spontaneously Hypertensive Rats (3) Whole and Particle-free Diesel Exhausts Differentially Affect Cardiac Electrophysiology, Blood Pressure, and Autonomic Balance in Heart Failure-prone Rats | Dr. Hazari, Mehdi S. (18%) Dr. Farraj, Aimen K. (18%) Mrs. Haykal-Coates, Najwa (10%) Mr. Winsett, Darrell W. (10%) Mr. Krantz, Q. Todd (10%) Mr. King, Charly (10%) Dr. Costa, Sc.D., Daniel L. (6%) Dr. Cascio, Wayne E. (4%) NHEERL |

Nominations Recommended for a Level II Award -- Total of 8

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|---|---|
| S13MM0057 | (1) Inter-laboratory Comparison of Real-time PCR Methods for Quantification of General Fecal Indicator Bacteria (2) MPN Estimation of QPCR Target Sequence Recoveries from Whole Cell Calibrator Samples (3) Comparison of Enterococcus qPCR Analysis Results from Fresh and Marine Waters on Two Real-time Instruments | Dr. Sivaganesan, Mano (20%) Dr. Haugland, Richard A. (19%) Dr. Varma, Manju (14%) Dr. Shanks, Orin C. (8%) Ms. Siefring, Shawn (5%) Dr. Oshima, Kevin H. (2%) Ms. Kelty, Catherine A. (2%) Dr. Peed, Lindsay (2%) NERL |
| S13OR0064 | (1) Temporal Patterns and Sources of Atmospherically Deposited Pesticides in Alpine Lakes of the Sierra Nevada, California, USA (2) Spatial Patterns of Atmospherically Deposited Organic Contaminants at High-Elevation in the Southern Sierra Nevada Mountains, California (3) Pesticide Distributions and Population Declines of California, USA, Alpine Frogs, <i>Rana muscosa</i> and <i>Rana sierra</i> | Dr. Bradford, David F. (14%) Dr. Heithmar, Edward M. (10%) Dr. Nash, Maliha S. (10%) Dr. Tallent-Halsell, Nita G. (10%) Dr. Momplaisir, Georges-Marie (8%) Ms. Rosal, Charlita G. (8%) Ms. Riddick, Lee A. (5%) Ms. Varner, Katrina A. (5%) NERL |
| S13RA0083 | Location Decisions of U.S. Polluting Plants: Theory, Empirical Evidence, and Consequences | Dr. Wolverton, Ann (50%) Dr. Shadbegian, Ronald (50%) NCEE |
| S13SI0087 | Estuarine Biotope Mosaics and Habitat Management Goals: An Application in Tampa Bay, Florida, USA | Dr. Cicchetti, Giancarlo (51%) NHEERL |

Nominations Recommended for a Level III Award -- Total of 27

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|--|--|
| S13HE0018 | Relative Bioavailability and Bioaccessibility and Speciation of Arsenic in Contaminated Soils | Dr. Bradham, Karen D. (15%) Dr. Scheckel, Kirk G. (15%) Dr. Thomas, David J. (15%) Mr. Nelson, Clay M. (10%) Dr. Huges, Michael F. (10%) Mr. Yeow, Aaron (5%) Dr. Serda, Sophia M. (5%) Ms. Harper, Sharon (5%) NRMRL |
| S13HE0021 | (1) Short-term Exposure to Triclosan Decreases Thyroxine in Vivo via Upregulation of Hepatic Catabolism (2) Developmental Triclosan Exposure Decreases Maternal and Neonatal Thyroxine in Rats (3) Developmental Triclosan Exposure Decreases Maternal, Fetal, and Early Neonatal Thyroxine: A Dynamic and Kinetic Evaluation of a Putative Mode-of-Action | Dr. Crofton, Kevin M. (25%) Ms. Hedge, Joan M. (25%) Dr. DeVito, Michael J. (3%) NHEERL |
| S13HE0024 | The Exposure Data Landscape for Manufactured Chemicals | Dr. Egeghy, Peter P. (25%) Dr. Cohen Hubal, Elaine A. (25%) Dr. Judson, Richard (20%) Dr. Gangwal, Sumit (10%) NERL |
| S13HE0027 | Approaches to Cancer Assessment in EPA's Integrated Risk Information System | Mr. Gehlhaus, III, Martin W. (23%) Dr. Gift, Jeff (18%) Ms. Hogan, Karen (18%) Dr. Kopylev, Leonid (18%) Dr. Schlosser, Paul (18%) Dr. Kadry, Abdel (5%) NCEA |
| S13HE0032 | (1) Subchronic pulmonary pathology, iron overload, and transcriptional activity after Libby amphibole exposure in rat models of cardiovascular disease (2) The role of iron Libby amphibole-induced acute lung injury and inflammation (3) Transcriptional activation of inflammasome components by Libby amphibole and the role of iron | Dr. Kodavanti, Urmila P. (25%) Ms. Schladweiler, Matte C. (9%) Dr. Gavett, Stephen H. (4%) Dr. Ghio, Andrew J. (4%) Ms. Vallanat, Beena D. (4%) Dr. Ward, William O. (4%) Mr. McGee, John K. (4%) Ms. Andrews, Debora (4%) Ms. Richards, Judy E. (4%) NHEERL |

Nominations Recommended for a Level III Award -- Total of 27

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|--|--|
| S13HE0033 | (1) Application of WWTP Biosolids and Resulting Perfluorinated Compound Contamination in Surface and Well Water in Decatur, Alabama, USA (2) Determination of Perfluorinated Compounds in the Upper Mississippi River Basin (3) Geographical Distribution of Perfluorinated Compounds in Fish From Minnesota Lakes and Rivers | Dr. Lindstrom, Andrew B. (25%) Dr. Strynar, Mark J. (25%) Dr. Libelo, E. Laurence (5%) Mr. Neill, Michael (5%) NERL |
| S13HE0040 | (1) An Integrated Imaging Approach to the Study of Oxidative Stress Generation by Mitochondrial Dysfunction in Living Cells (2) Linking Oxidative Events to Inflammatory and Adaptive Gene Expression Induced by Exposure to an Organic Particulate Matter Component (3) Monitoring Intracellular Redox Changes in Ozone-Exposed Airway Epithelial Cells | Dr. Samet, James M. (25%) Dr. Simmons, Steven O. (10%) Dr. Zucker, Robert M. (6%) Mr. Silbajoris, Robert (6%) Dr. Tong, Haiyan (4%) NHEERL |
| S13HE0041 | (1) Simulating Quantitative Cellular Responses Using Asynchronous Threshold Boolean Network Ensembles (2) Simulating Microdosimetry in a Virtual Hepatic Lobule (3) Virtual Tissues in Toxicology | Dr. Shah, Imran (40%) Dr. Wambaugh, John F. (40%) Dr. Jack, John (20%) NCCT |
| S13HE0043 | Benchmark Dose Analysis for Bacillus anthracis Inhalation Exposures in the Nonhuman Primate | Dr. Taft, Sarah C. (50%) NHSRC |
| S13HE0044 | Evaluation of Deltamethrin Kinetics and Dosimetry in the Maturing Rat using a PBPK Model | Dr. Tornero-Velez, Rogelio (50%) NERL |
| S13IE0050 | Near-Real-Time Combustion Monitoring for PCDD/PCDF Indicators by GC-REMPI-TOFMS | Dr. Oudejans, Lukas (40%) Dr. Gullett, Brian (30%) Mr. Tabor, Dennis (20%) Dr. Ryan, Shawn (5%) NRMRL |
| S13IR0054 | Direct Application of Biota-Sediment Accumulation Factors | Dr. Burkhard, Lawrence P. (50%) Dr. Cook, Philip M. (25%) Ms. Lukasewycz, Marta T. (25%) NHEERL |

Nominations Recommended for a Level III Award -- Total of 27

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|---|--|
| S13MM0056 | Development and Evaluation of EPA Method 1615 for Detection of Enterovirus and Norovirus in Water Applied and Environmental Microbiology, 79(1):215-223 | Ms. Cashdollar, Jennifer L. (33%) Ms. Brinkman, Nichole E. (10%) Ms. Griffin, Shannon M. (10%) Mr. McMinn, Brian R. (10%) Dr. Rhodes, Eric R. (10%) Ms. Varughese, Eunice A. (10%) Ms. Fout, G. Shay (8%) Dr. Grimm, Ann C. (4%) Dr. Parshionikar, Sandhya U. (3%) Mr. Wymer, Larry (2%) NERL |
| S13MM0059 | (1) Metagenome Analyses of Corroded Concrete Wastewater Pipe Biofilms Reveal a Complex Microbial System (2) Metagenomic Analyses of Drinking Water Receiving Different Disinfection Treatments | Dr. Santo Domingo, Jorge W. (34%) Mr. Revetta, Randy P. (33%) Dr. Gomez-Alvarez, Vicente (33%) NRMRL |
| S13OR0063 | Effects from Filtration, Capping Agents, and Presence/Absence of Food on the Toxicity of Silver Nanoparticles to <i>Daphnia magna</i> | Dr. Allen, H. Joel (30%) Dr. Impellitteri, Christopher A. (30%) Ms. Macke, Dana A. (17%) Ms. Roose, Deborah L. (10%) Dr. Poynton, Helen C. (5%) Dr. Lazorchak, James M. (5%) NRMRL |
| S13OR0065 | Post-processing Method to Reduce Noise while Preserving High Time Resolution in Aethalometer Real-time Black Carbon Data | Dr. Hagler, Gayle S.W. (40%) Dr. Yelverton, Tiffany L.B. (20%) Dr. Vedantham, Ram (20%) NRMRL |
| S13OR0069 | Human and Rat ABC Transporter Efflux of Bisphenol A and Bisphenol A Glucuronide: Interspecies Comparison and Implications for Pharmacokinetic Assessment | Mr. Mazur, Christopher S. (29%) Dr. Marchitti, Satori (28%) Dr. Kenneke, John (28%) NERL |
| S13OR0072 | Production and Consumption of Reactive Oxygen Species by Fullerenes | Dr. Zepp, Richard G. (50%) NERL |
| S13RA0077 | Active Pharmaceutical Ingredients and Aquatic Organisms | Dr. Daughton, Christian G. (75%) NERL |

Nominations Recommended for a Level III Award -- Total of 27

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|---|---|
| S13RA0079 | (1) U.S. Environmental Protection Agency Radiogenic Risk Models and Projections for the U.S. Population (2) U.S. Environmental Protection Agency Radiogenic Risk Projections: Uncertainty Analysis | Dr. Pawel, David J. (65%) Dr. Puskin, Jerome S. (35%) ORIA |
| S13SI0088 | Green Pharmacy and Pharm Ecovigilance: Prescribing and the Planet | Dr. Daughton, Christian G. (75%) NERL |
| S13SI0090 | (1) Ecological Periodic Tables for Benthic Macrofaunal Usage of Estuarine Habitats in the US Pacific Northwest (2) Ecological Periodic Table for Benthic Macrofaunal Usage of Estuarine Habits: Insights from a Case study in Tillamook Bay, Oregon, USA | Dr. Ferraro, Steven P. (80%) Ms. Cole, Faith A. (20%) NHEERL |
| S13TF0096 | (1) Incremental Testing of the Community Multiscale Air Quality (CMAQ) Modeling System Version 4.7 (2) Model Representation of Secondary Organic Aerosol in CMAQv4.7 (3) Simulating Emission and Chemical Evolution of Coarse Sea-Salt Particles in Community Multiscale Air Quality (CMAQ) Model | Dr. Foley, Kristen (7%) Mr. Roselle, Shawn (7%) Mr. Appel, Keith Wyatt (7%) Dr. Bhave, Prakash (7%) Dr. Carlton, Ann Marie (5%) Dr. Kelly, James (5%) Dr. Pleim, Jonathan (5%) Dr. Sarwar, Golam (5%) Mr. Gilliam, Robert (5%) Dr. Nolte, Christopher (4%) Dr. Napelenok, Sergey (4%) Mr. Otte, Tanya (4%) Dr. Young, Jeffrey (4%) Dr. Wong, David (4%) Dr. Mathur, Rohit (3%) Dr. Gilliland, Alice (3%) Dr. Edney, Edward (3%) Dr. Pouliot, George (3%) Dr. Hutzell, William (3%) Dr. Bash, Jesse (2%) Dr. Pinder, Robert (2%) Ms. Luecken, Deborah (2%) Mr. Bullock, Russell (2%) Ms. Schwede, Donna (1%) Mr. Houyoux, Marc (1%) NERL |

Nominations Recommended for Honorable Mention (No Monetary Award) -- Total of 38

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|---|--|
| S13CS0001 | (1) Emissions of PCDD/Fs, PCBs, and PAHs from a Modern Diesel Engine Equipped with Catalyzed Emission Control Systems (2) Emissions of PCDD/Fs, PCBs, and PAHs from legacy on-road heavy-duty diesel engines | Mr. Laroo, Christopher A. (45%) Mr. Schenk, Charles R. (20%) Mr. Sanchez, L. James (20%) Mr. McDonald, Joseph (10%) OTAQ |
| S13EE0003 | (1) Emissions Characterization of Residential Wood-Fired Hydronic Heater Technologies (2) Characterization of Carbonaceous Aerosols Emitted from Outdoor Wood Boilers | Mr. Kinsey, John S. (30%) Dr. Hays, Michael D. (30%) Dr. Linak, William P. (15%) Dr. Gullett, Brian K. (5%) Mr. King, Charly J. (5%) Dr. Yelverton, Tiffany L.B. (3%) NRMRL |
| S13EP0004 | Management Relevance of Benthic Biogeography at Multiple Scales in Coastal Waters of the Northeast US | Mr. Hale, Stephen S. (60%) Mr. Cote, Jr., Melville P. (15%) Ms. Searfoss, Renee (15%) Mr. Tedesco, Mark A. (10%) NHEERL |
| S13EP0005 | Recreation Demand Estimation and Valuation in Spatially Connected Systems | Dr. Newbold, Stephen C. (50%) Dr. Massey, D. Matthew (50%) NCEE |
| S13EP0006 | A Demonstration of the Necessity and Feasibility of Using a Clumsy Decision Analytic Approach on Wicked Environmental Problems | Dr. Stahl, Cynthia (50%) Mr. Cimorelli, Alan (50%) Region 3 |
| S13ER0009 | (1) Assessment of Probable Causes of Reduced Aquatic Life in the Touchet River, Washington, USA (2) Causal assessment of biological impairment in the Little Floyd River, Iowa, USA (3) An Iterative Approach for Identifying the Causes of Reduced Benthic Macroinvertebrate Diversity in the Williamatic River, Connecticut | Dr. Cormier, Susan M. (60%) Mr. LeMoine, Michael (3%) NCEA |

Nominations Recommended for Honorable Mention (No Monetary Award) -- Total of 38

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-----------|---|---|
| S13ER0012 | (1) Effects of a Glucocorticoid Receptor Agonist, Dexamethasone, on Fathead Minnow Reproduction, Growth, and Development (2) Effects of Gemfibrozil on Lipid Metabolism, Steroidogenesis, and Reproduction in the Fathead Minnow (<i>Pimephales promelas</i>) (3) Short-Term Study Investigating the Estrogenic Potency of Diethylstilbestrol in the Fathead Minnow (<i>Pimephales promelas</i>) | Dr. LaLone, Carlie A. (17%) Dr. Ankley, Gerald T. (10%) Dr. Villeneuve, Daniel L. (7%) Mr. Kahl, Michael D. (5%) Ms. Jensen, Kathleen M. (5%) Ms. Durhan, Elizabeth M. (5%) Ms. Makynen, Elizabeth A. (5%) Dr. Johnson, Rodney D. (2%) Dr. Olmstead, Allen W. (2%) NHEERL |
| S13ER0013 | In Vivo Assessment and Potential Diagnosis of Xenobiotics that Perturb the Thyroid Pathway: Proteomic Analysis of <i>Xenopus Laevis</i> Brain Tissue Following Exposure to Model T4 Inhibitors | Dr. Serrano, Jose A. (25%) Dr. Degitz, Sigmund J. (18%) Mr. Holcombe, Gary W. (7%) Mr. Tietge, Joseph E. (6%) Mr. Korte, Joseph J. (5%) Ms. Kosian, Patricia A. (5%) NHEERL |
| S13ER0015 | (1) Effects of a Dopamine Receptor Antagonist on Fathead Minnow Dominance Behavior and Ovarian Gene Expression in the Fathead Minnow and Zebrafish (2) Ecotoxicogenomics to Support Ecological Risk Assessment: A Case Study with Bisphenol A in Fish (3) A Graphical Systems Model and Tissue-Specific Functional Gene Sets to Aid Transcriptomic Analysis of Chemical Impacts on the Female Teleost Reproductive Axis | Dr. Villeneuve, Daniel L. (30%) Dr. Ankley, Gerald T. (9%) Ms. Durhan, Elizabeth J. (4%) Ms. Jensen, Kathleen M. (4%) Mr. Kahl, Michael D. (4%) Ms. Makynen, Elizabeth A. (4%) Dr. Burgoon, Lyle D. (3%) Dr. Edwards, Stephen W. (2%) Dr. LaLone, Carlie A. (2%) NHEERL |
| S13HE0019 | Predicting Residential Air Exchange Rates from Questionnaires and Meteorology: Model Evaluation in Central North Carolina | Dr. Breen, Michael S. (45%) Mr. Williams, Ronald W. (20%) Mr. Schultz, Bradley D. (15%) NERL |
| S13HE0020 | (1) Hepatic Xenobiotic Metabolizing Enzyme and Transporter Gene Expression Through the Life Stages of the Mouse (2) Transcriptional Ontogeny of the Developing Liver (3) Meta-Analysis of Gene Expression in the Mouse Liver Reveals Biomarkers Associated with Inflammation Increased Early During Aging | Dr. Corton, Chris (30%) Dr. Lee, Janice S. (30%) Dr. Ward, William (5%) Ms. Vallanat, Beena (5%) Dr. Ren, Hongzu (5%) Dr. Abbott, Barbara D. (2%) Dr. Delker, Don (1%) Mr. Knapp, Jeremy (1%) NHEERL |

Nominations Recommended for Honorable Mention (No Monetary Award) -- Total of 38

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|--|--|
| S13HE0023 | (1) Susceptibility of Inflamed Alveolar and Airway Epithelial Cells to Injury Induced by Diesel Exhaust Particles of Varying Organic Carbon Content (2) Nitric Oxide and Superoxide Mediate Diesel Particle Effects in Cytokine-treated Mice and Murine Lung Epithelial Cells-Implications for Suscetibility to Traffic-related Air Pollution (3) Diesel Exhaust Particles Induce Aberrant Alveolar Epithelial Directed Cell Movement by Disruption of Polarity Mechanisms | Dr. Dye, Janice A. (25%) Dr. LaGier, Adriana J. (25%) Mr. Slade, Ralph (4%) Ms. Richards, Judy H. (3%) Mr. McGee, John K. (3%) Mr. Ledbetter, Alan D. (3%) NHEERL |
| S13HE0025 | Allergens in Household Dust and Scrological Indicators of Atopy and Sensitization in Detroit Children with History-Based Evidence of Asthma | Dr. Williams, Ann H. (25%) Dr. Gallagher, Jane E. (20%) Dr. Smith, James Travis (20%) Mr. Hudgens, Edward E. (10%) Dr. Ozkaynak, Haluk A. (10%) Mr. Rhoney, Scott W. (10%) NHEERL |
| S13HE0026 | Proteome profiling reveals potential Toxicity abd detoxification pathways following exposure of BEA S-2B cells to engineered nanoparticle titanium dioxide | Dr. Ge, Yue (35%) Ms. Bruno, Maribel (25%) Dr. Winnik, Witold (15%) Mrs. Wallace, Kathleen (15%) NHEERL |
| S13HE0028 | Role of Oxidative Stress on Diesel-Enhanced Influenza Infection in Mice | Dr. Gilmour, Mathew I. (30%) Mr. Krantz, Quentin T. (10%) Mr. King, Charly (10%) Mrs. Boykin, Elizabeth (10%) Dr. Linak, William P. (5%) NHEERL |
| S13HS0046 | Detection of Multiple Waterborne Pathogens Using Microsequencing Arrays | Ms. Brinkman, Nichole E. (28%) Dr. Villegas, Eric N. (26%) Dr. Nichols, Tonya L. (7%) Dr. Schaefer, III, Frank W. (6%) NERL |

Nominations Recommended for Honorable Mention (No Monetary Award) -- Total of 38

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|---|--|---|
| <p>S13HS0047</p> <p>Linked With</p> <p>S13HS0048</p> | <p>Laboratory Evaluation of Large-Scale Decontamination Approaches</p> <p>(1) Inactivation of Vegetative Bacterial Threat Agents on Environmental Surfaces (2) The Effects of Environmental Conditions on Persistence and Inactivation of <i>Brucella suis</i> on Building Material Surfaces</p> | <p>Dr. Calfee, Michael Worth (40%) Dr. Ryan, Shawn P. (10%) Mr. Wood, Joseph P. (10%) Mr. Mickelsen, Leroy (10%) Mr. Kempster, Carlton Jeff (10%)</p> <p>Dr. Calfee, Michael Worth (90%) Ms. Wendling, Morgan (10%)</p> <p>NHSRC</p> |
| S13IE0051 | Lead Pipe Scale Analysis Using Broad-Beam Argon Ion Milling to Elucidate Drinking Water Corrosion | <p>Dr. Nadagouda, Mallikarjuna (35%) Dr. Lytle, Darren (35%)</p> <p>NRMRL</p> |
| S13IE0052 | <p>(1) Novel Pd based Catalyst for the Removal of Organic and Emerging Contaminants (2) Multifunctional Silver Coated E-33/Iron Oxide Water Filters: Inhibition of Biofilm Growth and Arsenic Removal</p> | <p>Dr. Nadagouda, Mallikarjuna (65%) Dr. Lytle, Darren (13%) Mr. Cruz, Carlo (5%)</p> <p>NRMRL</p> |
| S13IE0053 | <p>(1) Green Chemistry by Nano-Catalysis (2) Magnetically Separable Nanoferrite-Anchored Glutathione: Aqueous Homocoupling of Arylboronic Acids Under Microwave Irradiation (3) Nano-Organocatalyst: Magnetically Retrievable Ferrite-Anchored Glutathione for Microwave-Assisted Paal-Knorr Reaction, Aza-Michael Addition and Pyrazole Synthesis</p> | <p>Dr. Varma, Rajender S. (50%)</p> <p>NRMRL</p> |
| S13MM0058 | <p>(1) Ground Water Sample Preservation at In-Situ Chemical Oxidation Sites - Recommended Guidelines (2) Binary Mixtures of Permanganate and Chlorinated Volatile Organic Compounds in Groundwater Samples: Sample Preservation and Analysis</p> | <p>Dr. Huling, Scott G. (30%) Mrs. Johnson, Karen T. (30%) Ms. Germaine, Margie St. (10%)</p> <p>NRMRL</p> |
| S13OR0067 | Particle Size Distributions of Metal and Non-Metal Elements in an Urban Near-Highway Environment | <p>Dr. Hays, Michael D. (45%) Dr. Baldauf, Richard (10%)</p> <p>NRMRL</p> |
| S13OR0070 | Rehabilitation of Aging Water Infrastructure Systems: Key Challenges and Issues | <p>Dr. Selvakumar, Ariamalar (60%) Mr. Tafuri, Anthony N. (40%)</p> <p>NRMRL</p> |

Nominations Recommended for Honorable Mention (No Monetary Award) -- Total of 38

| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
|-------------|--|--|
| S13RA0073 | "DEHP: Genotoxicity and potential carcinogenic mechanisms-- A review | Dr. Caldwell, Jane C. (100%) NCEA |
| S13RA0076 | From Molecules to Management: Adopting DNA-based Methods for Monitoring Biological Invasions in Aquatic Environments | Dr. Darling, John A. (70%) NERL |
| S13RA0078 | A Review: On the Frontier, Analytical Chemistry and the Occurrence of Illicit Drugs into Surface Waters in the USA | Mrs. Jones-Lepp, Tammy (60%) NERL |
| S13RM0085 | Moving Beyond the Udothent - a Proposed Protocol for Surveying Urban Soils to Service Data Needs for Contemporary Urban Ecosystem Management | Dr. Shuster, William (60%) Mr. Clark, Patrick (3%) Mr. Furio, Brooke (3%) NRMRL |
| S13SI0091 | Hydrologic Futures: Using Scenario Analysis to Evaluate Impacts of Forecasted Land Use Change on Hydrologic Services | Mr. Kepner, William G. (55%) NERL |
| S13SI0093 | An Environmental Assessment of United States Drinking Water Watersheds | Mr. Wickham, James (70%) Mr. Wade, Timothy (20%) NERL |
| S13TF0094 | Regional scale photochemical model and evaluation of total mercury wet deposition and speciated ambient mercury | Dr. Baker, Kirk R. (80%) Dr. Bash, Jesse O. (20%) OAQPS |
| S13TF0095 | Effect of Imposed Anaerobic Conditions on Metals Release From Acid-Mine Drainage Contaminated Streambed Sediments | Dr. Butler, Barbara A. (100%) NRMRL |
| S13TF0098 | Method Development and Application to Determine Potential Plant Uptake of Antibiotics and other Drugs in Irrigated Crop Production Systems | Mrs. Jones-Lepp, Tammy L. (60%) NERL |
| S13TF0100 | The Meteorology-Chemistry Interface Processor (MCIP) for the CMAQ Modeling System: Updates through MCIPv3.4.1 | Ms. Otte, Tanya L. (90%) Dr. Pleim, Jonathan E. (10%) NERL |
| S13TF0101 | (1) Assessing Multi-Year Changes in Modeled and Observed Urban NO _x Concentrations from a Dynamic Model Evaluation Perspective (2) Dynamic Evaluation of a Regional Air Quality Model: Assessing the Emissions-Induced Weekly Ozone Cycle | Dr. Rao, Samohineeveesu T. (29%) Mr. Godowitch, James (17%) Dr. Pouliot, George (16%) Mr. Pierce, Thomas (13%) NERL |

| Nominations Recommended for Honorable Mention (No Monetary Award) -- Total of 38 | | |
|---|--|---|
| Nom. | Titles and Citations of Submitted Papers | EPA Authors and Nominating Organization |
| S13TF0102 | Model Forecasts of Atrazine in Lake Michigan in Response to Various Sensitivity and Potential Management Scenarios | Mr. Rygwelski, Kenneth R. (55%) Dr. Kreis, Jr., Russell G. (15%) NHEERL |
| S13TF0103 | (1) Influence of Collector Surface Composition and Water Chemistry on the Deposition of Cerium Dioxide Nanoparticles QCM-D and Column Experiment Approaches (2) Distinct Effects of Humic Acid on Transport and Retention of TiO ₂ Rutile Nanoparticles in Saturated Porous Media | Dr. Su, Chunming (50%) NRMRL |
| S13TF0104 | (1) Comparative evaluation of the impact of WRF/NMM and WRF/ARW meteorology on CMAQ simulations for PM 2.5 and its related precursors during 2006 TexAQSGoMACCS study (2) Comparative evaluation of the impact of WRF-NMM and WRF-ARW meteorology on CMAQ simulations for O ₃ and related species during the 2006 TexAQSGoMACCS campaign | Dr. Yu, Shaocai (30%) Dr. Mathur, Rohit (20%) Dr. Pleim, Jonathan (20%) Dr. Pouliot, George (5%) Dr. Wong, David (5%) Dr. Eder, Brian (5%) Dr. Schere, Kenneth (5%) Dr. Gilliam, Robert (5%) Dr. Rao, Samohineeveesu T. (5%) NERL |
| S13TF0105 | Assessment of Subsurface Drainage Management Practices to Reduce Nitrogen Loading Using AnnAGNPS | Dr. Yuan, Yongping (55%) Dr. Bingner, Ronald L. (15%) Dr. Locke, Martin A. (10%) NERL |

Key to Acronyms used in the above Tables

NCCT – Office of Research and Development (ORD) National Center for Computational Toxicology
NCEA – ORD National Center for Environmental Assessment
NCEE – National Center for Environmental Economics
NERL – ORD National Exposure Research Laboratory
NHEERL – ORD National Health and Environmental Effects Laboratory
NHSRC – ORD National Homeland Security Research Center
NRMRL - ORD National Risk Management Research Laboratory
NVFEL - OAR's National Vehicle and Fuel Emissions Laboratory
OAQPS – Office of Air Quality Planning & Standards
OAR - Office of Air and Radiation
ORIA – Office of Radiation and Indoor Air
OTAQ – Office of Transportation and Air Quality
Region 3 – Region 3 EPA