Achievement Award

The Achievement Award is presented to a member of the Society of Toxicology who has less than 15 years experience since obtaining his/her highest earned degree (in the year of the Annual Meeting of the Society of Toxicology) and who has made significant contributions to toxicology. This award consists of a plaque and a cash stipend.

Award Recipients

1967 .................................................................Gabriel L. Plaa
1968 .................................................................Allan H. Conney
1969 .................................................................Samuel S. Epstein
1970 .................................................................Sheldon D. Murphy
1971 .................................................................Yves Alarie
1972 .................................................................Robert L. Dixon
1973 .................................................................(No Award)
1974 .................................................................Morris F. Cranmer
1975 .................................................................Ian C. Munro
1976 .................................................................Curtis D. Klagesen
1977 .................................................................James E. Gibson
1978 .................................................................Raymond D. Harbison
1979 .................................................................Michael R. Boyd
1980 .................................................................Philip G. Watanabe

1981 .................................................................(No Award)
1982 .................................................................Frederick P. Guengerich
1983 .................................................................(No Award)
1984 .................................................................Melvin E. Andersen
1985 .................................................................Alan R. Buckpitt
1986 .................................................................Sam Kacew
1987 .................................................................James S. Bus
1988 .................................................................Jeanne M. Manson
1989 .................................................................James P. Kehrer
1990 .................................................................Michael P. Waalkes
1991 .................................................................Debra Lynn Laskin
1992 .................................................................Michael P. Holsapple
1993 .................................................................David L. Eaton
1994 .................................................................James L. Stevens
1995 .................................................................Lucio G. Costa
1996 .................................................................Kenneth Ramos
1997 .................................................................Kevin E. Driscoll
1998 .................................................................Rick G. Schnellmann
1999 .................................................................Michel Charbonneau
2000 .................................................................Christopher Bradfield
2001 .................................................................Martin Philbert
2002 .................................................................Ruth Roberts

Visit the SOT Web site for up-to-date Membership Information www.toxicology.org
AstraZeneca Traveling Lectureship Awards

The AstraZeneca Traveling Lectureship Awards are presented through the Society of Toxicology to recognize excellence in research and service in toxicology. AstraZeneca, Ltd., provides one or two awards annually to promote greater collaboration between European and North American toxicologists and to enable North American toxicologists to undertake a 3–4 week lecture tour of Europe. The awards are intended to familiarize recipients with research and regulatory issues in Europe as well as bring a North American perspective to these issues. Candidates for these awards should be established, mid-career North American scientists who are members of the Society and who demonstrate the ability to develop collaborative relationships with European colleagues. The awards are given each year in the amount of $6,000 each.

Award Recipients

1990 ....................... Robert I. Krieger, Joseph R. Landolph
1991 .................................................. Sam Kacew
1992 ............................................ Charles V. Smith, Jerold A. Last
1993 ...................................... Terrence James Monks, Haritha H. Mehendale
1995 ........................................... David L. Eaton, Hanspeter R. Witschi
1996 ........................................... Rick G. Schnellmann, James P. Kehrer
1997 ............................................. Lucio G. Costa, Durisala Desaiah
1998 .............................................. Syed F. Ali, Curtis J. Omiecinski
1999 ............................................. Alvaro Pugo
2000 ........................................... Kenneth Ramos, Garold Yost
2001 ............................................. Ronald Hines, Richard Seegal

AstraZeneca Fellowship

Three (3) fellowship awards are available to senior scientists from a country where toxicology is underrepresented to assist with travel to attend the 2003 Society of Toxicology meeting in Salt Lake City, Utah, USA, March 9–13, 2003. The awards are sponsored by AstraZeneca.

Award Recipients

2002 ............................................. Christophor Dishovsky (Bulgaria), Zoltan Gregus (Hungary), Maritza Rojas Martini (Venezuela), Choon-Nam Ong (Singapore), W. Wasowicz (Poland), Ping-kun Zhou (China)
Board of Publications Award

The Board of Publications Awards for the Best Paper in Toxicology and Applied Pharmacology and the Best Paper in Toxicological Sciences are presented to the author(s) of the best paper published in each of the official SOT publications during a 12-month period, terminating with the June issue of the calendar year preceding the Annual Meeting at which the award is presented. The author(s) need not be a member of the Society of Toxicology. Submissions should include a one-page summary of the paper's contribution to the science of toxicology and a copy of the article for which the nomination is being made. Any member of the Society may submit one title for consideration per journal award. In addition, the titles of no more than six papers to be considered for each award are submitted by the editors of each official SOT publication. All papers submitted will be evaluated by the Board of Publications. This award consists of a plaque and a cash stipend.

Best Paper in Fundamental and Applied Toxicology and Toxicological Sciences

Award Recipients

1997 ........................................... B. C. Allen, R. J. Kavlock, C. A. Kimmel, E. M. Faustman
2001 ........................................... Jiaqi Chen, Yunbo Li, Jackie A. Lavigne, Michael A. Trush, James D. Yager

Burroughs Wellcome Fund Toxicology Scholar Award

The Burroughs Wellcome Fund Toxicology Scholar Award offered five-year scholar awards to support career development in toxicology. These awards were intended to identify and encourage the development of established, independent investigators whose work will advance the understanding of toxicological processes on both fundamental and physiologic levels. (This award is no longer being offered.)

Award Recipients

1981 ........................................... Alan P. Poland
1982 ........................................... Curtis D. Klaassen
1983 ........................................... Frederick P. Guengerich, R. Craig Schnell
1984 ........................................... Philip Guzelian
1985 ........................................... I. Glenn Sipes
1986 ........................................... Daniel Acosta
1987 ........................................... Bruce D. Hammock, Richard P. Mailman
1988 ........................................... Harthar A. Mehendale
1989 ........................................... Stephen H. Safe
1990 ........................................... Mahin D. Maines
1991 ........................................... Robert A. Roth
1992 ........................................... Janice E. Chambers
1993 ........................................... Debra Lynn Laskin, Leona Samson
1994 ........................................... Kim Boekelheide, Dennis Theile
1995 ........................................... Ellen Li, Curtis J. Omiecinski
1996 ........................................... Christopher Bradfield, Bennett Van Housten
1997 .......................... Christopher Bradfield, Bennett Van Housten

Visit the SOT Web site for up-to-date Membership Information www.toxicology.org
Colgate-Palmolive Post-Doctoral Fellowship Award in In Vitro Toxicology

The Colgate-Palmolive Company sponsors the Colgate-Palmolive Post-Doctoral Fellowship Award in In Vitro Toxicology through the Society of Toxicology to advance the development of alternatives to animal testing in toxicological research. The award is given in alternate years and includes stipend and research-related costs (up to $33,000) for one year. The award may be extended for an additional year upon agreement between Colgate-Palmolive and the post-doctoral fellow. Post-doctoral trainees in their first year of study beyond the Ph.D., M.D. or D.V.M. degree who are employed by academic institutions, federal/national laboratories or research institutes worldwide may apply. The Education Committee reviews applications, which are due in even calendar years, and the fellowship is awarded for the following year. The next application deadline: October 9, 2002.

Award Recipients
1988 ........................................................................ Ernest Bloom
1989 ........................................................................... Ginn Hsieh
1990 .................................................................. Dennis E. Chapman
1991 .......................................................... Anne Walsh
1992 ............................................................................ Qin Chen
1993 .......................................................... Erika Cretton
1994 ........................................................................... William Chan
1995 ........................................................ Bob Van de Water
1997 .......................................................... Alan Parrish
1999 ...................................................................... Russell Thomas
2001 .......................................................... Kevin Kerzee, Christopher Reilly

Colgate-Palmolive/SOT Awards for Student Research Training in Alternative Methods

The purpose of the Colgate-Palmolive/SOT Awards for Student Research Training in Alternative Methods is to enhance student research training using in vitro methods or alternative techniques to reduce, replace or refine use of animals in toxicological research. The Education Committee will present the awards to graduate students or to institutions that provide research internships. Up to six awards, at $2,500 each, are available. Applications received after October 9 will be accepted until all funds are committed.

Graduate Students: The award will help to defray expenses for graduate students in toxicology to visit an off-site laboratory for the purpose of gaining knowledge about and developing in vitro or alternative toxicity techniques that will support the student's dissertation research. The overall goal of this program is to support the replacement, reduction or refinement of currently used animal models in toxicology research and testing.

Institutions: Awards will also be made to institutions that propose a 10-week research experience for students (at any level) involving in vitro toxicology or alternative methods to reduce, replace, or refine, the use of animals in toxicology research.

Award Recipients
2000 ................................................................................ Jason Gross
2001 ........................................................................ Jason Biggs, Victoria Richards
2002 ................................................ Kartik Shankar, Chad M. Vezina, and Ryan L. Williams

Colgate-Palmolive Traveling Lectureship in Alternative Methods in Toxicology Award

The Colgate-Palmolive Company sponsors the Colgate-Palmolive Traveling Lectureship in Alternative Methods in Toxicology Award annually through the Society of Toxicology. This award covers expenses for an individual scholar to visit institution(s) for the dissemination of knowledge and for stimulating research that takes advantage of modern in vitro toxicology approaches. The overall goal of this program is to make scientists aware of the benefits of modern in vitro toxicology approaches and to stimulate research for the replacement, reduction or refinement of currently used animal models. The scholar may be asked to make a special presentation at the SOT Annual Meeting.

Lecturing scholars should be established, mid-career through late-career scientists who are members of SOT and who are developing collaborative relationships with scientists at other institutions.
Award Descriptions (Continued)

Requests for funds can be made by the individual scholar or by organizations such as universities, colleges, SOT Specialty Sections and SOT Regional Chapters, and other toxicology organizations that are interested in inviting the scholar. Up to $15,000 is available. The Awards Committee reviews the applications, which must be accompanied by a statement of the applicant’s experience, a brief overview of the techniques to be discussed in the lecture, and a letter from the hosting institution(s) indicating their interest in serving as host and the potential benefits to the institution.

Award Recipients

1996 .................................. University of Mississippi Medical Center, Visiting Professor: .........................................................Tetsuo Satoh
1996 .................................. University of Illinois at Urbana, Visiting Professor: ................................................................. Julio Davila
1996 .................................. Mississippi State University, Visiting Professor: ................................................................. Michael Holtsapple
1996 .................................. Washington State University, Visiting Professor: ................................................................. Sam Kacew
1996 .................................. Indiana University School of Medicine, Visiting Professor: ............................................................. A. Jay Gandolfi
1997 .................................. University of Arizona Health Science Center, Visiting Professor: ......................................................... Kevin E. Driscoll
1997 .................................. University of New Mexico Health Sciences Center, Visiting Professor: ......................................................... Michael Denison
1997 .................................. University of Illinois, Visiting Professor: ................................................................. Bruce Fowler
1998 .................................. San Diego State University, Visiting Professor: ................................................................. Leigh Ann Burns Naas
1999 .................................. San Diego State University, Visiting Professor: ................................................................. Garold Yost
1999 .................................. Graduate School of Public Health, Visiting Professor: ................................................................. Harold C. Hodge
2000 .................................. Yale University, School of Medicine, Visiting Professor: ................................................................. Narendre Singh
2001 .................................. Medical College of Wisconsin, Visiting Professor: ................................................................. Robert Chapin

Visiting Professor:

Award Recipients

1996 .................................. University of Mississippi Medical Center, Visiting Professor: .........................................................Tetsuo Satoh
1996 .................................. University of Illinois at Urbana, Visiting Professor: ................................................................. Julio Davila
1996 .................................. Mississippi State University, Visiting Professor: ................................................................. Michael Holtsapple
1996 .................................. Washington State University, Visiting Professor: ................................................................. Sam Kacew
1996 .................................. Indiana University School of Medicine, Visiting Professor: ............................................................. A. Jay Gandolfi
1997 .................................. University of Arizona Health Science Center, Visiting Professor: ......................................................... Kevin E. Driscoll
1997 .................................. University of New Mexico Health Sciences Center, Visiting Professor: ......................................................... Michael Denison
1997 .................................. University of Illinois, Visiting Professor: ................................................................. Bruce Fowler
1998 .................................. San Diego State University, Visiting Professor: ................................................................. Leigh Ann Burns Naas
1999 .................................. San Diego State University, Visiting Professor: ................................................................. Garold Yost
1999 .................................. Graduate School of Public Health, Visiting Professor: ................................................................. Harold C. Hodge
2000 .................................. Yale University, School of Medicine, Visiting Professor: ................................................................. Narendre Singh
2001 .................................. Medical College of Wisconsin, Visiting Professor: ................................................................. Robert Chapin

Visit the SOT Web site for up-to-date Membership Information www.toxicology.org
**Enhancement of Animal Welfare Award**

The Enhancement of Animal Welfare Award is presented annually to a member of the Society in recognition of the contribution made to the advancement of toxicological science through the development and application of methods that replace, refine, or reduce the need for experimental animals. This award recognizes outstanding significant contributions made by members of the Society of Toxicology to the scientifically sound and responsible use of animals in research. The achievement recognized may be either a seminal piece of work or a long-term contribution to toxicological science and animal welfare. The award consists of a plaque and a cash stipend.

**Award Recipients**

2000 ......................................................... Yves Alarie  
2001 ......................................................... Alan Goldberg  
2002 ......................................................... Gary Williams  

**Frank R. Blood Award**

The Frank R. Blood Award was presented to the author(s) of the best paper published in official SOT publications during a 12-month period terminating with the June issue of the calendar year preceding the Annual Meeting at which the award was presented. This award has been replaced by Best Paper Award.

**Award Recipients**

1974 ......................................................... Yves Alarie  
1975 ..... Donald J. Ecobichon, G. J. Johnstone, O. Hutzinger  
1976 ......................................................... Richard D. Brown  
1977 .......... J. Dedinas, George D. DiVincenzo, C. J. Kaplan  
1980 ............ Jerold A. Last, Peter F. Moore, Otto G. Raabe, ......................................................... Brian K. Tarkington  
1981 .... Yves Alarie, Martin Brady, Christine Dixon, Meryl Karol  
1982 ............. Melvin E. Andersen, Michael L. Gargas, ......................................................... Lawrence J. Jenkins, Jr., Robert A. Jones  
1983 ......................................................... Henry D. Heck  
1984 .......... Erik Dying, Sidney Nelson, Erik Soderlund, ......................................................... Christer Von Bahr  
1985 ............ Nobumasa Imura, Masae Inokawa, Kyoko Miura  
1986 .......... Calvin C. Wilhite, M. I. Dawson, K. J. Williams  
1987 .......... John Kao, Frances K. Patterson, Jerry Hall  
1988 .......... Debra L. Laskin, Sungchul Ji, Anne M. Pilaro  
1990 .......... William P. Beierschmitt, Joseph T. Brady, ......................................................... John B. Bartolone, D. Stuart Wyand,  
1991 ............ Edward A. Khairallah, Steven D. Cohen  
1992 .......... Jay Babcock Silkworth, Daryl Cutler, ......................................................... LuAnn Antrim, Don Houston, Casimir Tumasonis, ......................................................... Laurence S. Kaminsky  
1993 .......... Donald A. Fox, Steve D. Rubinstein, Pauline Hsu  
1994 .......... Thomas Mably, Robert W. Moore, Robert W. Goy, ......................................................... Richard E. Peterson  
1995 .......... Susan J. Borghoff, William H. Lagarde
### Graduate Student Travel Awards

Graduate Student Travel Awards defray expenses for students presenting platform talks or posters at the annual meeting. To be eligible, the student must be a SOT member (or have submitted a membership application), who has not previously received a graduate student travel award.

### Honorary Membership

The Society of Toxicology recognizes non-members who embody outstanding and sustained achievements in the field of toxicology with the Honorary Member Award. Candidates are nominated by two voting or associate members of the Society. Seconding letters and information regarding career achievements in toxicology should accompany the nomination. A two-thirds vote of Council determines recipients, with not more than two Honorary Members elected during any one term of Council. Nominations should be sent to SOT Headquarters.

#### Inductees

- Bernard B. Brodie*
- Ethel Browning*
- John E. Casida
- Jud Coon
- Gertrude B. Elion*
- Ronald W. Estabrook
- George H. Hitchings*
- Eugene M.K. Geiling*
- Charles S. Lieber
- Michel Mercier
- Herbert Needleman
- Norton Nelson*
- W. F. Von Oettingen*
- Sten G. Orenius
- Dennis Parke
- Herbert Remmer
- William O. Robertson
- Findlay Russell
- Roger W. Russell*
- Torald H. Sollman*
- Takashi Sugimura
- Wendell W. Weber
- R. Tecwyn Williams*
- Hyman J. Zimmerman*

* Deceased

### Procter & Gamble Company Graduate Fellowship

#### Award Recipients

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
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<tbody>
<tr>
<td>1979</td>
<td>Paul W. Ferguson</td>
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<tr>
<td>1980</td>
<td>Anthony P. De Capri</td>
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<td>1981</td>
<td>Cheng Wang</td>
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<td>1982</td>
<td>Samson Chow</td>
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<td>1983</td>
<td>Laurie Bastig</td>
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<tr>
<td>1984</td>
<td>Philip Bartholomew</td>
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<td>1985</td>
<td>Russell Esterline</td>
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<td>1986</td>
<td>Leonard Sauer</td>
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<td>1987</td>
<td>Randall Ruch</td>
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<td>1988</td>
<td>Lawrence J. Dahm</td>
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<td>1989</td>
<td>Christopher M. Weghorst</td>
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<td>1990</td>
<td>Enrique Chacon</td>
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<td>1991</td>
<td>Janice Thornton-Manning</td>
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<td>1992</td>
<td>Melecita Archuleta</td>
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<td>1993</td>
<td>Regina Donohoe</td>
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<td>1994</td>
<td>Gary Miller</td>
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<td>1995</td>
<td>Sanjay Jain</td>
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<td>1996</td>
<td>Weston Porter</td>
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<td>1997</td>
<td>Louise Winn</td>
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<td>1998</td>
<td>Kristin Williamson</td>
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<td>1999</td>
<td>James Kerzec</td>
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<tr>
<td>2000</td>
<td>Jeffrey Card</td>
</tr>
<tr>
<td>2001</td>
<td>Elizabeth Tonkin</td>
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<td>2002</td>
<td>Kristin Horn</td>
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### Novartis Corporation Graduate Fellowship

#### Award Recipients

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<th>Year</th>
<th>Name</th>
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<tbody>
<tr>
<td>1989</td>
<td>Timothy Zacharewski</td>
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<tr>
<td>1990</td>
<td>Mary Suzanne Stefanak</td>
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<tr>
<td>1991</td>
<td>Donald Bjerke</td>
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<td>1992</td>
<td>Lhanoo Gunawardhana</td>
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<td>1993</td>
<td>Christopher Martenson</td>
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<tr>
<td>1994</td>
<td>Nyla Harper</td>
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<td>1995</td>
<td>Heather E. Kleiner</td>
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<td>1996</td>
<td>Russell Thomas</td>
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<td>1997</td>
<td>Melva Rios-Blancos</td>
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<td>1998</td>
<td>Kent Carlson</td>
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<td>1999</td>
<td>Mark Hickman</td>
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<tr>
<td>2000</td>
<td>Jeffrey Moran</td>
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<tr>
<td>2001</td>
<td>Vimal Vaidya</td>
</tr>
<tr>
<td>2002</td>
<td>Kartik Shankar</td>
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Visit the SOT Web site for up-to-date Membership Information www.toxicology.org
Merit Award

The Merit Award is presented to a member of the Society of Toxicology in recognition of a distinguished career in toxicology. This award consists of a plaque and a cash stipend.

Award Recipients

1967 - Arnold J. Lehman
1968 - R. T. Williams
1969 - Harold C. Hodge
1970 - Don D. Irish
1971 - Kenneth P. Dubois
1972 - O. Garth Fitzhugh
1973 - Herbert E. Stokinger
1974 - William B. Deichmann
1975 - Frederick Coulston
1976 - Gerald K. Rowe
1977 - Harry W. Hays
1978 - Julius M. Coon
1979 - David W. Fassett
1980 - Bernard L. Oser
1981 - John H. Weisburger
1982 - Harold M. Peck
1983 - Perry J. Gehring
1984 - Tom S. Miya
1985 - Carol S. Well
1986 - Ted A. Loomis
1987 - Bo Holmstedt
1988 - Seymour L. Friess
1989 - Wayland J. Hayes, Jr.
1990 - Sheldon D. Murphy
1991 - Toshio Narahashi
1992 - W. Norman Aldridge
1993 - John Doull
1994 - Ernest Hodgson
1995 - Robert A. Scala
1996 - Gabriel L. Plaa
1997 - Mary O. Amdur
1998 - John A. Thomas
1999 - Thomas Clarkson
2000 - Philippe Shubik
2001 - Donald Reed
2002 - Bernard Schwetz

Minority Undergraduate Student and Advisor Awards

The Minority Undergraduate Student and Advisor Awards provide support for awardees to participate in the Undergraduate Education Program at the SOT Annual Meeting. This program is an introduction to the discipline of toxicology for undergraduate science majors and includes an orientation, a special poster session with scientists, and activities with a SOT mentor. The travel awards are for those from races and ethnic groups under-represented in the sciences (African American, American Indian or Hispanic American) and for their advisors. Advisors are eligible regardless of racial or ethnic background. Meeting registration and support for travel, Lodging, and meals are provided for students and advisors who are not local to the meeting site. Students and advisors from local institutions receive registration and an expense stipend. The program is supported in part by NIH-MARC, Pfizer, and Johnson & Johnson.

Public Communications Award

The Public Communications Award is presented by the Society of Toxicology to recognize an individual who has made a major contribution to broadening the awareness of the general public on toxicological issues through any aspect of public communications. The award should reflect accomplishments made over a significant period of time. Examples of qualifying media in which the nominated communication may appear are: books, brochures, continuing education courses, data bases, extension bulletins, magazines, newspapers (local or national), public presentations, public forums, radio and television scripts, and workshops. The award consists of a plaque and a cash stipend.

Awards Recipients

1994 - Michael A. Kamrin
1995 - Philip Abelson
1996 - Bruce N. Ames
1997 - Audrey Gotsch
1999 - Sam Kacew
2001 - Anna Shvedova
2002 - Sam Kacew
Regional Chapter Awards

Most SOT Regional Chapters provide awards to recognize outstanding students. Application requirements and deadlines vary. Visit the Regional Chapter or Awards and Fellowship sections on the SOT Web site for full details.

Robert L. Dixon International Travel Award

The Robert L. Dixon Award, sponsored by the Toxicology Education Foundation, takes applications from graduate students in the area of reproductive toxicology. The award carries a stipend of $2,000 for travel costs to enable a student to attend the International Congress of Toxicology meeting. It is available every three years. (Next application date is October 9, 2003.)

Award Recipients
1989 ................................................................. Kevin L. Stark
1992 ............................................................. Daland Richard Juberg
1998 .............................................................. Xuelin Li
1998 .............................................................. Jeeyeon Bee
2001 .............................................................. Mark Fielden

Scientific Achievement Award

The Scientific Achievement Award is presented to a member of SOT who has made substantial and seminal scientific contributions to the discipline of toxicology. The prime consideration for this new award is scientific accomplishments and not necessarily service to the Society. This award consists of a plaque and a cash stipend. This award has been replaced by the Distinguished Lifetime Toxicology Scholar Award.

Award Recipients
2001 .............................................................. James E. Trosko

Society of Toxicology/American Chemistry Council Early Award in Inhalation Toxicology

The Society of Toxicology and the American Chemistry Council Early Award in Inhalation Toxicology of up to $100,000 is designed to encourage persons beginning their professional careers to conduct research that will improve the scientific basis for risk assessment and decision making with respect to the potential inhalation toxicity of chemicals.

Society of Toxicology/American Chemistry Council Early Award in Neurotoxicology

The Society of Toxicology/American Chemistry Council Early Award in Neurotoxicology of up to $100,000 is designed to encourage persons beginning their professional careers to conduct research that will improve the scientific basis for risk assessment and decision making with respect to the potential neurotoxicity of chemicals.

Award Recipients
2002 .............................................................. Ronald Tjalkens

Specialty Section Student Awards

Most SOT Specialty Sections provide awards to recognize outstanding student presentations at the SOT annual meeting. Application requirements and deadlines vary. For more details refer to the Award descriptions on the SOT Web site at www.toxicology.org, under Specialty Sections or the Awards and Fellowships sections.
Achievement

The Award Committee of the Society of Toxicology unanimously selected Dr. Ruth A. Roberts as the recipient of the Achievement Award. The committee viewed Dr. Roberts eminently qualified for this Award.

Dr. Roberts received her undergraduate degree in biochemistry from Manchester University, and subsequently a Ph.D. from the Faculty of Medical Oncology at Christie Hospital, UK. Following the completion of her Ph.D. work, she was a postdoctoral fellow at the Imperial Cancer Research Fund in London from 1987 to 1989. In 1990 she joined Zeneca CTL, now Syngenta CTL, where she is currently Head of Cell Biology Research.

The importance of Dr. Roberts’ contributions has been widely recognized and her work has uniquely enhanced the scientific basis of risk assessment. Dr. Roberts research has been vital to understanding the cellular and molecular mechanisms by which peroxisome proliferators induce liver tumors in rodents. This work has formed the foundation for evaluation of the potential risk of these compounds to humans. Dr. Roberts’ more recent research has focused on gene expression effects of peroxisome proliferators and the mechanisms of survival signaling, apoptosis and the role of nuclear hormone receptors in cellular responses to nongenotoxic carcinogens. Those research efforts have identified the critical function of Kupffer cells in the process of peroxisome proliferator-induced carcinogenesis.

Dr. Roberts has an impressive record of publications and is a highly sought speaker at national and international Toxicology conferences. She continues to be an inspiring mentor and teacher to undergraduate and graduate students alike.

Arnold J. Lehman

The Arnold J. Lehman Award honors a member of the Society of Toxicology for major contributions that improve the scientific basis of risk assessment. The 2002 awardee, Dr. Dennis Paustenbach, is internationally known for his research and expertise in risk assessment and toxicology and for his leadership in developing and applying better scientific principles for the assessment and regulation of chemical substances. Dr. Paustenbach is Vice President at Exponent Corp., an engineering and scientific consulting firm, where he specializes in the areas of industrial and environmental toxicology, pharmacokinetics, and ecological and human risk assessments. He has published nearly 200 peer-reviewed articles and written over 30 book chapters in the fields of industrial hygiene, human and aquatic toxicology, engineering, and risk assessment. His text, Risk Assessment of Environmental Hazards: A Textbook of Case Studies, is a classic in the field of risk assessment and is widely used in university courses. His new text Human and Ecological Risk Assessment; Theory and Practice was just published.

Dr. Paustenbach is perhaps best known for his development of more realistic methods to estimate exposures, using experimental and observational data to generate probability distributions, instead of point values based on default assumptions. His methodologies have been widely used by industry and the EPA.
This is an exceptional manuscript, in terms of both presentation and science that tests a clear hypothesis and presents clear and unambiguous results to support the hypothesis. The studies detailed in the manuscript test the hypothesis that the composition of the human GABA_A receptor subunit determines both the sensitivity and selectivity of insecticide toxicity. This receptor is the target for the insecticides α-endosulfan, lindane and fipronil, as well as many of their analogs. The manuscript is the first to use recombinant receptors to show the effect of receptor subunit on the binding of (3H) ethynylbicycloorthobenzoate (EBOB). These data demonstrate that the β-3 subunit contains the insecticide target and other subunits differentially modulate the binding site to confer compound-dependent specificity and selective toxicity.

Toxicological Sciences


Hepatocellular apoptosis mediated by the Fas receptor is important for removal of virally infected cells or cells which have been exposed to injurious concentrations of drugs or chemicals including ethanol and hydrophobic bile acids. However, activation of this receptor in a large number of cells can lead to acute liver failure. Ligation of the Fas receptor with an anti-Fas antibody triggers the activation of the upstream signaling caspase-8. The authors showed that inhibition of caspase-8 effectively prevents mitochondrial cytochrome c release, activation of downstream caspases, DNA fragmentation and cell injury in hepatocytes and nonparenchymal cells. Most importantly, the data indicate that only a small amount of procaspase-8 may actually be processed at the Fas receptor. This initial signal is then amplified by further activation of caspase-8 by downstream effector caspases. Thus, the apoptotic signal is progressively amplified within the cell by involving an increasing number of mitochondria. As a consequence of this mechanism, Fas-mediated apoptosis can be prevented at multiple levels during this amplification cycle.
played an important role in educating and advising faculty about Toxicology, at a time when perceptions about the field were changing rapidly. Many of these individuals redirected their research as a result of his influence. Throughout his career, Dr. Borzelleca has given his time unselfishly to both students and colleagues. He has worked with individuals from academia, government and industry in addressing and resolving issues in Toxicology and Regulatory Affairs. He is considered one of the wise-elder-statesmen in the field who, to this day, is sought after for scientific and career advice. Dr. Borzelleca has served in many capacities within the Society of Toxicology, and is past president.

Enhancement of Animal Welfare

The 2002 Award for the Enhancement of Animal Welfare is presented to Dr. Gary M. Williams, Professor of Pathology and Director of Environmental Pathology and Toxicology at New York Medical College. Dr. Williams' research has led to the reduction of animals needed to obtain scientifically valid data. He was responsible for the development of Williams 'Medium E,' which has become a standard in the maintenance of liver specific functions in hepatocyte culture systems. The potential for in vitro hepatocyte systems to investigate chemical toxicity led to his development and characterization of the hepatocyte primary culture (HPC)/DNA repair assay, which utilizes the biotransformation capabilities of hepatocytes and a specific endpoint, unscheduled DNA synthesis, to evaluate one mechanism of chemical carcinogenesis. The HPC/DNA repair test is accepted by regulatory agencies worldwide in support of the approval of drugs and chemicals. It is impossible to calculate the reduction in animal numbers that has resulted from this approach.

Dr. Williams' bibliography lists over 460 papers, chapters in books, and books in the field of mechanisms of carcinogenesis, the effective detection of carcinogens through in vitro methods and selective batteries of tests, and the application of such batteries to practical problems in toxicology and pharmacology. Thus, the development by Dr. Williams of approaches not employing large numbers of animals in detecting and measuring human cancer risks constitutes a major advance in protecting humans from cancer through application of basic research to this practical question.

Merit

One of the nominees, Dr. Bernard (Bern) A. Schwetz, emerged from a list of strong candidates as the unanimous choice of the SOT Awards Committee to be the recipient of the 2002 SOT Merit Award. This award is presented to a member of the Society of Toxicology in recognition of a distinguished career in toxicology. Clearly, Dr. Schwetz exceeds this criterion. He has had a distinguished career in both the public and private sectors, in research and administration, and in service to the science of toxicology and the Society of Toxicology. Following completion of the Doctor of Veterinary Medicine degree at the University of Minnesota, Dr. Schwetz received both M.S. and Ph.D. degrees in Pharmacology at the University of Iowa. The next twelve years were spent at the Toxicology Research Laboratory of Dow Chemical, culminating with four years as Director. The ten years following were spent at NIEHS, his distinction in both research and leadership roles leading to his appointment, in 1993, as Director of NCTR, with the additional role, a year later, of Associate Commissioner for Science in the Food and Drug Administration. He is currently Acting Principal Deputy Commissioner at FDA. Dr. Schwetz's early research, in the 1970s, although extensive and broad in scope, had a central core of groundbreaking studies in reproductive toxicity. These studies have been of enormous importance, not only in stimulating further mechanistic studies in embryonic and fetotoxicity, but also in revolutionizing risk assessment and regulation in these important areas. Many of these studies were carried out on chemicals of considerable public and scientific interest, including benzene, pentachlorophenol, vinyl chloride, 2,4,5-T, and fumigants, to mention only a few. These choices indicate a strong desire to emphasize the importance of this area of toxicology and these toxic endpoints and to bring science based risk assessment to bear on their regulation. His services to SOT are similarly extensive and at many levels, including council, regional chapters and journals, enriching all of those activities that are so important to our membership. In summary, Dr. Schwetz has been a distinguished contributor and leader in toxicology who brings honor and recognition to the Society of Toxicology.
The 2002 Public Communications Award is presented to Dr. Sam Kacew of the University of Ottawa, Canada. Dr. Kacew is being recognized for his substantial efforts to promote and communicate the science of toxicology around the world. Dr. Kacew has given numerous lectures at universities in North America encouraging undergraduate, graduate and post-doctoral students to actively pursue careers in toxicology. One specific example is Dr. Kacew’s sustained participation as a key scientist in the Howard Hughes Summer Research Program at John Hopkins University. The goal of this program is to encourage Hopkins undergraduates in the School of Arts & Sciences and the School of Engineering to pursue careers in toxicology-related research. In addition to his efforts in North America, Dr. Kacew has visited more than twenty countries in Europe, Asia, and Africa where he has given public lectures to promote the importance of toxicology as well as the importance of publication of scientific data in peer reviewed journals. In addition to his public lectures, Dr. Kacew has actively assisted scientists from other countries in preparing and submitting their work to peer-reviewed toxicology journals. Dr. Kacew is an internationally recognized scientist who has contributed greatly to public appreciation of the importance of toxicology around the world.

The 2002 American Chemistry Council Early Award in Neurotoxicology is presented to Dr. Ronald B. Tjalkens, Assistant Professor in the Department of Veterinary Anatomy and Public Health, College of Veterinary Medicine, Texas A&M University. Dr. Tjalkens’ Award, which is the first of its kind to be awarded through SOT, will be used to support work under his proposal “NF-κB, Nitric Oxide, and Astroglia in Manganese Neurotoxicity.” This work will seek to establish the capacity of manganese (Mn) to initiate neuronal degeneration via overproduction of nitric oxide by glia and to explore mechanisms of neuronal injury resulting from astroglial dysfunction associated with Mn accumulation. In addition, attempts will be made to uncover new molecular targets for the design of therapeutic interventions to mitigate neuronal injury applicable to diseases such as Parkinson’s Disease. Dr. Tjalkens obtained his Bachelor of Science degree in Chemistry and Biochemistry at the University of California at San Diego, was an NIAAA-NRSA Pre-Doctoral Fellow at the University of Colorado Health Sciences Center where he earned his Ph.D. in Toxicology in 1998 under Dr. Dennis Petersen. From 1998 to 2001, he was a Post-Doctoral Fellow in Neurotoxicology at the University of Michigan, working with Dr. Martin Philbert.

The American Chemistry Council represents the chemical industry on public policy issues, coordinates the industry's research and testing programs, and administers the industry's environmental, health, and safety performance improvement initiative. This Early Career Award in Neurotoxicology—sponsored by the Long-Range Research Initiative of the American Chemistry Council (the Council) and administered through the Society of Toxicology—is provided to encourage persons beginning their professional careers to conduct research on topics related to neurotoxicology. The Award is intended to enhance career development for investigators at academic institutions in North America, encourage innovative research, and strengthen the dialogue between the Council and the research community. The American Chemistry Council represents the chemical industry on public policy issues, coordinates the industry’s research and testing programs, and administers the industry’s environmental, health, and safety performance improvement initiative.
### 2002 Student Award Recipients

<table>
<thead>
<tr>
<th>Fellowship</th>
<th>Recipient</th>
<th>University</th>
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| Colgate-Palmolive Post-Doctoral Fellowship in In Vitro Toxicology  
(Awarded 2001, Renewed 2002)                     | Recipient: Kevin Kerzee          | University of Cincinnati  |
| Covance Corporation Graduate Fellowship         | Recipient: Edward Williams       | Texas A&M University      |
| Novartis Corporation Graduate Fellowship        | Recipient: Kartik Shankar        | University of Louisiana at Monroe |
| Procter & Gamble Company Graduate Fellowship    | Recipient: Kristin Horn          | Indiana University School of Medicine |
### 2002 Fellowship and Travel Award Winners

#### 2002 SOT Graduate Travel Award Recipients

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Leanne L. Bedard</td>
<td>Queen’s University</td>
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<td>Udayan M. Apte</td>
<td>University of Louisiana at Monroe</td>
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<tr>
<td>Diana J. Auyeung</td>
<td>Virginia Commonwealth University</td>
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<td>Martin Beliveau</td>
<td>University of Montreal</td>
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<td>Yadvinder Bhuller</td>
<td>University of Toronto</td>
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<tr>
<td>Susan R. Bielmeier</td>
<td>University of North Carolina at Chapel Hill</td>
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<tr>
<td>Ling Cao</td>
<td>SUNY at Albany</td>
</tr>
<tr>
<td>Connie S. Chen</td>
<td>University of Toronto</td>
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<tr>
<td>Jennifer Choich</td>
<td>University of Maryland, Baltimore</td>
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<td>Kevin Crowthers</td>
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<tr>
<td>Francisco J. Dieguez-Acuna</td>
<td>University of Washington</td>
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<td>Shelley B. DuFeaux</td>
<td>University of California, Davis</td>
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<td>Jaime L. Emrich</td>
<td>Medical College of Wisconsin</td>
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<td>Mark R. Fielden</td>
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<td>Carissa R. Filbrandt</td>
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<td>Christine T. French</td>
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<td>Stephanie Girard</td>
<td>University of Quebec</td>
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<td>Neera Gopee</td>
<td>University of Georgia</td>
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<td>Rayetta C. Grasty</td>
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<td>Joshua P. Gray</td>
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<td>Paul R. Hanlon</td>
<td>University of Wisconsin-Madison</td>
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<td>Belinda S. Hawkins</td>
<td>Michigan State University</td>
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<td>Kelly Hogan</td>
<td>Rutgers/UMDNJ</td>
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<td>Kanjana Imsip</td>
<td>University of Illinois</td>
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<td>Anil Kachroo</td>
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<td>Julia C. Kennedy</td>
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<td>Marquea D. King</td>
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<td>Donald S. Kirkpatrick</td>
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<td>Sun Ku Lee</td>
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<td>Jeong-Eun Lee</td>
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<td>Jong-Min Lee</td>
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<tr>
<td>Pallavi Limaye</td>
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<tr>
<td>Nikki L. Maples</td>
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<td>Erik J. Martin</td>
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<td>Tami S. McMullin</td>
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<td>Judith A. Miockier-Audrain</td>
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<td>Sarah F. Mowbray</td>
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<tr>
<td>Marjorie A. Peraza</td>
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<td>Janis Peterson</td>
<td>University of Texas, El Paso</td>
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</tbody>
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#### 2002 Burroughs Wellcome Fund Graduate Travel Award Recipients

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Kartik Shankar</td>
<td>University of Louisiana at Monroe</td>
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<tr>
<td>Chad Vezina</td>
<td>University of Buffalo</td>
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<tr>
<td>Ryan Williams</td>
<td>University of California, Riverside</td>
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#### 2002 Merck & Company Student Travel Award Recipients

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Jiangang Chen</td>
<td>University of California, Davis</td>
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<tr>
<td>Jamie L. Emnrich</td>
<td>Medical College of Wisconsin</td>
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<tr>
<td>Norma J. Barlow</td>
<td>CIIT Centers for Health Research</td>
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<tr>
<td>Julia C. Kennedy</td>
<td>University of Toronto</td>
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<tr>
<td>Doyeob Kim</td>
<td>West Virginia University</td>
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<tr>
<td>Donna Waling Lee</td>
<td>University of Rochester</td>
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<tr>
<td>Gary D. Minsavage</td>
<td>University of Rochester</td>
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<tr>
<td>Kimberley A. O’Hara</td>
<td>Dartmouth Medical School</td>
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<tr>
<td>Heui-Young Ryu</td>
<td>Boston University School of Public Health</td>
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<tr>
<td>Tobias Schmid</td>
<td>University of Kaiserslautern, Germany</td>
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<tr>
<td>Yan Zheng</td>
<td>Iowa State University</td>
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#### Colgate-Palmolive SOT Award for Student Research Training in Alternative Methods

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