

**President's Message:
Teratology, *Teratology*, and the Teratology Society
Submitted by Jan Friedman, M.D., Ph.D.**

The next year will be a very important one for our discipline, our journal, and our Society. The Annual Meeting in Montreal was excellent, and I am grateful to all of the sponsors, speakers, organizers, and staff who contributed to its success. I am especially grateful to Kok-Wah Hew, Bob Kavlock, Phil Mirkes, Tonia Masson, and Clarissa Wilson, whose contributions were extraordinary. Bill Slikker and his 2002 Program Committee are putting together an outstanding meeting for next year in Scottsdale, Arizona and I hope that you have already circled the dates: June 22 to 27, 2002.

We shall hold a second strategic planning retreat in the Spring of 2002 to chart how our Society will advance over the next several years. We have made substantial progress since our first planning exercise in 1997 as a result of the strong leadership of my predecessors as president, much more effective management of our business affairs, continuing improvement of our journal and Annual Meetings, and a lot of hard work by many dedicated members. The 1997 retreat helped turn the Society around, and we are now moving in the right direction.

The 2002 retreat will consider how we can best take advantage of an unprecedented scientific opportunity. Advances in cellular and molecular biology, embryology, molecular pharmacology, genetics, genomics, and proteomics will lead to much better understanding of normal and abnormal development. It is now becoming possible to use this knowledge to prevent birth defects. The Teratology Society can lead the way; I think that we must.

To do so requires a clear vision of where our Society wants to go and how we will get there. The 2002 strategic planning retreat will be the first step. The agenda for the retreat has not yet been developed, but it is essential that the ideas of as many of our members as possible be considered. There will be opportunities for broad input before the retreat and while the new strategic plan is still in draft form. I urge you to send me your comments, concerns, criticisms, and compliments throughout the process. The easiest way to reach me is by e-mail at frid@interchange.ubc.ca. The retreat will probably be held in conjunction with the Society of Toxicology Meeting in Nashville, Tennessee. For reasons of practicality and cost, we must limit the number of people who actually attend, but if you are interested, please let me know.

Discussions are continuing with Wiley-Liss, the publisher (and owner) of our journal, *Teratology*. Our goal is, first and foremost, to enhance the journal's quality, but we also want to improve the terms of our contract so that we can share in the journal's financial success. We are assembling an information package that will include a clear description of the changes that are being proposed, as well as a discussion of the context in which they have arisen, their potential benefits and risks to the Society and its members, and alternatives that have been considered. It is the responsibility of Council, as the elected representatives of the Society, to make any decisions about the future of the journal that are necessary, but there will continue to be opportunities for all members to provide their suggestions and advice. A membership survey concerning these issues will be conducted this fall. In the meantime, please direct your comments to Tom Knudsen, who is chairing the committee responsible for these negotiations, or to me.

I look forward to working with you as President. We'll be in touch!

Past President's Article

Submitted by Robert J. Kavlock, Ph.D.

It is with both pleasure and regrets that I submit my final contribution, in an official capacity, to the Teratology Society Newsletter. I have been proud to be your President, and feel that the Society continues to make steady progress toward being a more vibrant and energetic group. My vision statement when I was nominated for office spoke to adhering to the priorities laid out in our Strategic Research Plan, and I am pleased to say we have made significant advances in the financial management of the Society and in the strength of the annual scientific program (as witnessed by the wonderful meeting organized in Montreal by Jan Friedman, and the almost standing room only attendance at the Continuing Education Course organized by Kok Wah Hew and his committee). Our revenue base is much stronger, thanks to continued grant support from NIH for student travel to the Annual Meeting, increased contributions of our corporate members, and tight budgetary management by Tonia Masson, our Executive Director. As I mentioned at the Business Meeting, without the extra sources of funding the registration fee for members would have had to be doubled to pay the costs of the holding the meeting.

But there is still more to do. We have not been as successful at addressing issues related to membership (recruitment and retention), and to the viability of the journal, and these will be focus of efforts of the next Presidents. To help guide how we address those two issues, and new ones that come to light, Council voted in Montreal to hold our 2nd Strategic Planning Retreat on the fifth anniversary of the first. The meeting will likely be held in Nashville in March in conjunction with the Society of Toxicology meeting. Jan Friedman, Bill Slikker and George Daston have the organizational lead for the retreat.

This will be a watershed year for our journal, as Lew Holmes has informed Council that he will not be seeking a second five-year term as Editor in order to devote more time to his research interests. Lew deserves a lot of credit for moving the journal in the right direction in terms of higher quality papers, and more efficient publishing, and he will be difficult to replace. Rich Miller has agreed to chair the search committee for the new editor, which will be selected by Council at next year's Annual Meeting. Meanwhile, George Daston has been actively negotiating with Wiley-Liss about a new publishing contract, and there is a concept proposal to have *Teratology* renamed and relaunched in January 2003 as a three-part journal. Those of you at the Issues Forum on Sunday night in Montreal heard the details, which sparked lively hallway discussions for the rest of the week amongst attendees. I will not go into the details here, but the membership will be kept informed through several routes on progress in the negotiations, and Council has taken note of your concerns and comments.

As I close out the article, I am reminded about what great opportunities we now have to understand more about the causes of birth defects and how they can be prevented. From the impact of folate supplementation on reducing NTDS, to the new funding by NICHD, NIEHS and EPA on research to understand the important risk factors behind structural birth defects, to the emerging multi-agency effort to initiate the Children's Longitudinal Cohort Study, to the CDC funded effort to develop a repository of biological material from several thousands of cases of key birth defects for use in determining genetic susceptibility factors. I can't help but feel the next few years will really provide the Society with a lot of material to carry out our three

pronged mission of birth defect research, education and prevention. And while this unfolds, I will be able to cherish the wonderful crabwood gavel made by my mentor, Cas Grabowski, and presented to me at the banquet by your new President, Jan Friedman. See you all in Phoenix, where hopefully I will be a bit more relaxed.

Westward Ho!

Submitted by William Slikker, Jr., Ph.D.

When we pull up at the beautiful Fairmont Resort outside of Scottsdale, Arizona, our eyes will be dazzled with the panoramic delights of the high desert. The red of the vibrant painted landscapes, the green of the golf course grounds and the blue of the several swimming pools will beckon us to this land of enchantment. The vitality will continue inside the meeting halls during the many exciting courses, scientific sessions and award winning presentations. All of this food for the senses as well as the famed Southwest cuisine will be there for you at the 42nd Annual Teratology Society Meeting, June 22-27, 2002.

Thanks to your input, several new features will be unveiled at this year's Annual Meeting. There will be a sunrise mini-course on experimental design/statistics, a noontime debate on the concept of *all or none* in teratology, and a visit from the FDA's Acting Commissioner. Students and award winners will be provided greater visibility. The closeness of our three Societies (OTIS, NBTS and TS) will be demonstrated by co-sponsored Symposia and by the use of adjacent conference facilities. To aid you in attending the scientific sessions of your choice, we will offer each attendee a combined summary Program.

In keeping with our enriched environmental setting, the planned courses and scientific sessions are strong and dynamic. To kick it off, the Education Course will focus on "Mechanisms, Biomarkers, and Data Interpretation: An Integrative Risk Assessment using Developmental Neurotoxicity as a Model." The scientific Symposia will include: "The Application of Proteomics to Developmental Toxicology" (March of Dimes Symposium), "Molecular Epidemiology Applied to Developmental Toxicology (Pharmacogenetics, Dose Responses and Teratogenicity)," "Children's Health and Environmental Chemical Exposures: Prediction of Risk from Animal Models and Clinical Studies," and, back by popular demand, "Teratogen Update." With over 18 special lecture and scientific sessions to pick from, there will be something for everybody.

So whether you rise early to enjoy a tennis match, some green time or a rousing "beach" volleyball game, you'll be ready to enjoy the heat of the day in the cool of the conference rooms, soaking up all those new and exciting discoveries. The hard working Program Committee (Judy Buelke-Sam, Mildred Christian, Michael Cunningham, Donna Farmer, Deb Hansen, Antonio Machado, Richard Miller, Phil Mirkes, Rochelle Tyl and Pat Wier) and I are always ready for your continued input. So send us your comments and plan ahead for the best darn meetin' in the Wild West!

Plan to submit your abstracts in January 2002 and take advantage of the Early Registration deadline in April 2002.

2001 Education Course

Submitted by Kok-Wah Hew, Ph.D., Ph.D.

The 2001 Continuing Education Course—"Principles of Teratology: Application of New Technologies towards Understanding Abnormal Development" broke attendance records. The attendance for the Course was 152. The course reviewed the principles of teratology and discussed how the principles have remained intact even as new technologies and information have become available. The course was organized according to the six principles of teratology as proposed by Wilson.

This outstanding Course would not be possible without the hard work and dedication of the entire committee. Please join me in thanking the following members:

David Clarke
Dona Farmer
Kit Keller
Dana Shuey
Ida Smoak

A special thank you is also extended to Eli Lilly and Company for producing the Course Syllabus. Companies interested in producing the Syllabus in the future should contact Tonia Masson at Headquarters, tmasson@teratology.org.

Teratology Society 2001 Annual Meeting Student Awards

1. Young Investigator Travel Awards

Ferleine Bautista	University of Washington
Kimberly Brannenl	University of North Carolina - Chapel Hill
Jeff Charlap	Thomas Jefferson University
Rebecca Cimildoro	Thomas Jefferson University
Gautam Ghatnekar	North Carolina State University
Wafa Harrouk	U.S. Food and Drug Administration
Nia Joyner	North Carolina State University
Yolanda MacKinnon	Trent University
Antonio Machado	University of California - Los Angeles
Norbert Makori	University of California - Davis
Lisa Martin	University of California, Los Angeles
Daniel Nazarenko	University of Rochester School of Medicine
Michael OHara	Thomas Jefferson University
Rodolfo Quintero	Glendale Adventist Medical Center
Paul Reynolds	Brigham Young University
Debora Sinner	CFFYBO CONICET
Jan Smith	University of North Carolina - Chapel Hill
Rajagopal Sriperumbudur	North Carolina State University
Dana Tarka	University of North Carolina - Chapel Hill
Robert Vinson	McGill University, Montreal, Canada
Mona Wu	University of British Columbia

2. Eli Lilly Women and Minority Travel Award - Rebecca Cimildoro

3. Lawrence T. Wetzel Travel Award - Ferleine Bautista

4. Marie Taubeneck Award – Robert Vinson

5. Wilson Family Presentation Award for Postdoctoral Fellow – Dr. Antonio Machado

6. Wilson Family Presentation Award for Predoctoral Student – Michael O’Hara

7. James C. Bradford Memorial Student Poster Award - Daniel Nazarenko

Update On Journal Negotiations
Submitted by George Daston, Ph.D.

We had a good, informative discussion at the Issues Session, held at the Annual Meeting, about the pros and cons of a possible re-launch of *Teratology* as a multi-part journal with the tentative title of *Birth Defects Research*. The proposed changes were outlined fully in the previous issue of the newsletter, but to summarize briefly, there would be three journals under the title of *Birth Defects Research*: one that would cover the existing mission of *Teratology*, a second that would be an outlet for more standard developmental and reproductive toxicology papers, and a third that would be a quarterly review of developmental biology and teratology. The publisher will take steps to improve the visual appeal and readability of the journals. The publisher believes that it can successfully market a re-launched *Teratology* to more institutional libraries and will give the Teratology Society a greater share of the proceeds, with a guaranteed minimum of \$50,000/year. This is \$50,000 more than we are now getting, and would have a huge benefit on the finances of the Society.

I received many good questions and supportive feedback after the previous newsletter article. The Issues Session at the Annual Meeting provided more critical feedback, which we are working hard to address. Among the many questions raised included concerns about whether the new journals would be as inclusive to clinical fields as the existing journal and whether the new proposal might harm the impact factor of the journal. We've already been taking steps to address these questions. Tom Knudsen and I have been working on scope statements for the new journal sections, and we have been working with the publisher to answer other questions raised.

Our next step will be to provide you with the answers to all the questions raised in the Issues Session, and request your feedback. We will do this through a mailing and with a broadcast e-mail to the membership, along with an electronic means for you to provide feedback. I envision the process will be similar to the web-based approach we used to solicit your opinions about the logo.

In the meantime, please feel free to contact me anytime about the journal proposal or the negotiation process. My phone number is 513-627-2886, and my e-mail is daston.gp@pg.com.

**Journal Submissions Summary
Submitted by Lewis Holmes, M.D.**

The attached table shows that the Journal continues to receive about 100 manuscripts per year. Each year we receive several which reflect the exciting new findings from research on the causes of birth defects. We encourage all members to support the Journal by sending us your manuscripts for publication.

Submissions (Jan. 1998 - June 15, 2001)

Year	Submissions	Manuscripts	Teratogen Updates	Letters-to-Editor	Book Reviews	Invited Editorials	Position Statements	Hypothesis Papers	Mini reviews	Symposia	Obituaries
1998	139	109	5	17	0	3	0	0	1	2	2
1999	123	95	0	16	3	4	1	2	1	1	0
2000	131	105	3	12	0	5	1	0	1	2	2
2001	45	37		2	3	1	2	0	0	0	0

**Public Affairs Committee Update
Submitted by Christina Chambers, MPH**

In the last several months, the Public Affairs Committee has completed a statement on alcohol that will appear in an upcoming issue of the Journal. A letter to the editor, submitted by some members of the committee, was recently published in JAMA addressing the continuing concerns about appropriate and effective controls on the use of Accutane among women of reproductive age. A summary of the Public Affairs Symposium on herbal products that was presented at the 2000 Teratology Society meeting in Palm Beach has been prepared by the speakers and will appear in the Journal. The 2001 Symposium, presented in Montreal, was focused on FDA issues including the pregnancy labeling revision, post-marketing surveillance, methods for evaluating reproductive toxicity in animal studies, and the effectiveness of pregnancy prevention programs for known teratogens. A summary of this Symposium is currently being prepared for publication.

Society Liaison Updates

American College of Toxicology (ACT) Update

Submitted by Mildred S. Christian, Ph.D., Fellow, ATS Liaison

The Annual Meetings of the American College of Toxicology for the next three years will be held as noted below. For meeting registration and additional information, please contact Eve Gamzu Kagan [ekagan@act.faseb.org] at the ACT Secretariat [TEL:(301) 571-1840; FAX: (301) 571-1852], 9650 Rockville Pike, Bethesda, MD 20814.

ACT 22nd Annual Meeting November 4-7, 2001 Renaissance Washington DC Hotel
Washington, DC

ACT 23rd Annual Meeting November 10-13, 2002 Hershey Lodge Hershey, PA

ACT 24th Annual Meeting November 2-5, 2003 Renaissance Washington DC Hotel
Washington, DC

ACT's Annual Meeting last year in San Diego, CA was very well attended and offered several symposia that were highly relevant and served as a tutorials, as do most of ACT's symposia. These are provided without supplementary fees as part of the education outreach efforts of ACT. One on "Gender-Based Differences Affecting the Outcome, Interpretation and Relevancy of Safety Studies" was particularly well attended and addressed gender-based differences in pharmacologic and toxicologic responses in animals and humans. Included in this symposium were: a review of the genomic basis for gender-related responses; FDA's concerns regarding gender-based differences in toxicity; gender-based pharmacokinetics differences; problems in developing appropriate animal models for human risk assessment; and gender-related differences in responses of males, females, conceptuses and neonates to genistein (humans and animals), a human food supplement approved by FDA on the basis of its ability to enhance cardiovascular health in men, although it was identified as an endocrine modulator in animals. The symposium will be published soon in entirety in the ACT's journal, The International Journal of Toxicology. Please consider attending the meeting this year and supporting a platform or poster session focused on your society's area of expertise.

The following is an update on the 22nd Annual Meeting of the American College of Toxicology to be held in Washington DC, November 4-7, 2001.

The Draft program and the pre-meeting education course directory are now available for your review.

The Continuing Education Courses will begin Sunday, November 4. Full four hour Course offerings Sunday morning include 1) Study Director Training, or 2) Regulatory Update. There is also a two hour mini-course entitled Animal Issues in Toxicology. Sunday afternoon has the second half of the Study Director Training course (another four hours) and a second two hour mini-course dealing with Practical Approaches to Applying the Immunotoxicology Guidelines to

Safety Assessment. Sunday evening will be a special event with the "Capitol Steps" performing exclusively for the American College of Toxicology meeting (there is a separate purchase required for tickets to this event).

The Annual Meeting will begin Monday morning with a plenary lecture by Robert Gallo, MD. Bob's title is "HIV-AIDS: Perspectives From the Past and Challenges for the Future". Following this plenary lecture, three different symposia will be offered: 1) Ocular Phototoxicity (sponsored by Charles River Laboratories), 2) Mitochondrial Toxicity: Evolution, Models of Disease, and Mechanisms of Action (sponsored by GlaxoSmithKline) and 3) Precautionary Principles.

The Keynote Luncheon on Monday features the Distinguished Service Award with the recipient presenting a brief talk (this is the award that Bernie Schwetz won last year).

Monday afternoon has the second half of the Ocular Phototoxicity Symposium plus the options of a symposium on Antibiotic Resistance - Who is Winning the War? or a symposium on Dietary Mycotoxins - Intake and Risk Considerations.

Tuesday morning has three symposia to choose from: 1) Toxicology of Special Populations: Pediatrics & the Elderly, 2) New Methods in Immunotoxicology and 3) In Silico Methods for Selection and Development of Safe Substances for US FDA Regulation. Noon will feature a Brown Bag Luncheon with an open forum dealing with "Discussions on Computational Toxicology."

Tuesday afternoon offers the GREAT DEBATE: This year, the "fight" will be over Fluoridation - Is it Safe and Ethical and Effective? In addition an interesting update on Brownfields or another symposium dealing with Cardiac Troponins as Biomarkers of Drug-induced Myocardial Injury will also be offered. If you would rather participate in continuing education, the Student Poster Discussion Session will also be held this afternoon and will be followed that evening by a general poster session in conjunction with a wine and cheese reception.

The meeting concludes Wednesday morning with two more symposia, one on Current Issues in Toxicologic Pathology and another on US FDA/CDER Toxicity Review Challenges.

Society of Toxicology Updates

SOT Award Announcement

The Society of Toxicology announces the availability of the Early Career Award in Neurotoxicology. This award, sponsored by the American Chemistry Council, provides up to \$100,000 support to encourage persons beginning their professional careers to conduct research on topics that will improve the scientific basis for risk assessment and decision making with respect to the potential neurotoxicity of chemicals. Scientists with research interests in neurotoxicology and full-time faculty positions at accredited North American institutions granting graduate degrees are eligible. Complete description and the application are found at

<http://www.toxicology.org/Information/AwardsFellowships/awardsponsored.html#accean>.

Deadline is October 9, 2001.

SOT Use of Genomic Data in Risk Assessment Workshop

Mark your calendar for November 7-8, 2001 for the Society of Toxicology Contemporary Concepts in Toxicology meeting: Use of Genomic Data in Risk Assessment: State of the Art 2001 in the DC area.

The focus and objective of the meeting is to discuss recent advancements in genomics (the global analysis of genes and their expression) and how they have set the stage for understanding the adaptive and toxicological responses of individuals after exposure to toxic insults. It is now possible to simultaneously assess the levels of expression of thousands of different genes using DNA microarrays. With the completion of the Human Genome Project, it will be possible to analyze the expression of all genes transcribed in a specific cell.

The risk of causing a disease by toxicant exposure used to be estimated across populations with widely varying responses resulting from each individual's unique genetic make-up (toxicogenomics). In the 21st century, the new genomic technologies will greatly improve the accuracy of risk assessment allowing identification of sensitive subpopulations at risk, and ultimately resulting in a personalized risk profile for each individual based on their genetic composition. This workshop will examine these genomic technologies and the implications for risk characterization and understanding of gene-environment interactions. Complex social, moral, and legal issues raised by the project relating to the protection of human subjects, the privacy of genetic information, and the possibility of discriminatory uses of the data generated by the project are also covered.

For more information about the speakers and to register for the meeting please visit

<http://www.toxicology.org/memberservices/FormsApps/genomics.pdf>.

Organizing Committee Members:

Michael L. Cunningham, NIEHS

Tim Zacharewski, MSU

Ron Hines, MCW

Matt Bogdanffy, DuPont

We look forward to seeing you at the meeting.

New Members of the Teratology Society (June 2000-July 2001)

Regular Members

Tamara Agajanova
Rhett Behrje
Stacy Branch, Ph.D.
Vic Ciaravino, Ph.D.
Jodie Duffy, Ph.D.
P. Jackie Duke, Ph.D.
Elpida-Niki Emmanouil-Nikaloussi,
Ph.D.
Ali Faqi, Ph.D.
Karen Freshwater
Marie Golub
Anne Greenlee, Ph.D.
Catherine Hayes, D.M.D.
Elise Lewis, Ph.D.
Jiin-Jia Liaw, Ph.D.
Donald McLeod, M.D.
Michael Narotsky, Ph.D.
Shem Patyna, Ph.D.
Kristine Shields, M.S.N.
Jerry Spoo, D.V.M.
Sifakis Stavros, M.D., Ph.D.
Hiroshi Sumida, Ph.D.
Joseph Tigner, Ph.D.
Belén Tornesi, D.V.M.
Nancy Trenton
David Wright, Ph.D.
Keisuke Yamashita, Ph.D.

Associate Members

William Dutczak, M.S., Ph.D.
Jennifer Manley, M.Sc.
Seyed Moallem, Ph.D.
Guilhermino Nunes, Ph.D.

Student Members

Francisco Cisneros, D.V.M.
Benjamin Gersh
Daniel Nazarenko
Dana Tarka

Emeritus Members

Louis Daillaire, Ph.D.
Allen Goldman, M.D.
Joseph Lary, Ph.D.
Sidney Stolzenberg, Ph.D.

Letter to the Editor

Any members wishing to participate in the Letters to the Editor column in the newsletter are invited to submit your materials to the Secretary. We will publish letters from the membership without editing when ever possible (we reserve the right to delete our names from diatribes against people if we are specifically mentioned).

The letters can be requests for information about techniques, solicitations of expert opinions on data interpretation, comments on published articles, job recruitment's, position/opinion statements or requests for membership participation.

We will require contact information so responding parties can contact you directly (name, phone or e-mail address would be sufficient).

So lets hear it! We are a vehicle of information waiting to be utilized.

Request for Contributions to the Teratology Society Historical Archives

If you have any information about the Teratology Society that you feel should be placed in our archives, please send this material to Headquarters. Be sure to include a detailed index of the items that you are providing, and any explanatory information necessary to fully describe the material and approximate dates covered (i.e. names of individuals present and location if sending photographs).

We will review and collate all materials for placement in the archives. This information will be transferred to Ron Jensh, the current Society Archivist, for placement in the Teratology Society's Historical Archives, which are located at the College of Physicians of Philadelphia.

If you have any questions, please contact Society Headquarters.

Teratology Society Headquarters
1767 Business Center Drive, Suite 302
Reston, VA 20190