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PRESIDENT'S MESSAGE



Dear Colleagues:

As I look out my office window at a snowy  Cincinnati, it's hard to believe that most of the plans for the Annual Meeting in June are already set. The program has taken shape, with an exciting new continuing education course on signal transduction, several cutting edge symposia, and a satellite meeting on genomics and proteomics as they relate to teratology. There are articles in this newsletter on each of these, by Bob Kavlock, vice president and chair of the Program Committee, JoLynda Jones, chair of the Education Committee, and Phil Mirkes, who has put together the satellite meeting. All we need now is your participation. We are counting on you to make the 40th Annual Meeting the most successful ever.

One of the reasons we are able to do more with both the scientific and social programs at the meeting is a more active focus on fundraising. We continue to receive support from our long-time President's Circle and Sustaining Members, as well as the generosity of groups such as the March of Dimes. We've been seeking other sponsors to subsidize our student travel awards, satellite meeting, and other aspects of the scientific program. John Rogers, our Treasurer, has an article in this issue describing some of our successes in fundraising. I am also

grateful to corporate sponsors who, in addition to their corporate membership give contributions to help support some of the social functions at the meeting. I would like to especially acknowledge Elsevier for sponsoring our welcoming reception, and WIL Labs, who have made it possible for us to bring in very special entertainment for our banquet: a swing band featuring the Teratology Society's own Ed Carney on saxophone. We are still seeking sponsors for the poster session refreshments and other events.

We continue to make efforts to encourage student participation at the meetings. We will be able to provide travel assistance to both the annual meeting and the satellite meeting. The Student Affairs Committee will once again administer the Wilson and Taubeneck awards to recognize the achievement of graduate students and post-doctoral fellows. Our sister organizations MARTA and MTA are organizing a student mixer, generously sponsored by Pfizer, to give students more of an opportunity to meet with senior members of the Society.

Speaking of student participation, if you haven't already seen the Just for Students section on the web site, take a look. Anthony Delise and his colleagues have put together an excellent site, with information on teratology, teratogens, graduate programs, and opportunities for students to interact.

Speaking of electronic media, I hope all of you have been able to look at the journal and other Wiley publications on-line. Wiley has granted full access to its web site to Teratology Society members. It's a great new way to look at *Teratology*, and a sign of goodwill from Wiley. The journal has been looking a lot more robust lately, for which Lew Holmes and his editorial staff deserve great praise. The Wilson Publication award will be inaugurated this year, which may also stimulate submissions to *Teratology*. Wiley-Liss appears to be committed to improving the journal, and their relationship with the Teratology Society. They have recently contacted our Publications Committee to plan a marketing campaign for the journal. We are also in negotiations that would scrap the existing contract, now scheduled to run through 2004, in favor of an agreement that will be more favorable for the Society. We should know whether we have a deal by June.

The members of the Teratology Society have done a lot of soul searching over the past several years about the future of the Society. I am increasingly optimistic about our future. As President of the Society I've noticed the willingness of our members to volunteer in any number of ways to make the Annual Meeting a success and to ensure the continuation of the species by promoting student activities. I've seen how eager corporations and philanthropic organizations are to give us money to support our work: they just need to be asked. I've seen how our colleagues in extramural programs at NIH have encouraged us to compete for grant funding to support the meeting. And, most importantly, I've seen how we as scientists are adapting to a changing world: the tools of the trade may be changing, but our mission of understanding abnormal development is just as viable and important as it was forty years ago. I think we're putting ourselves in an excellent position to continue to meet the challenge of solving the problem of birth defects.

Best regards,

George Daston

Note added: Take a virtual tour of The Breakers, site of our June 2000 meeting, <http://www.thebreakers.com>



Vice-President's Report - January, 2000

Submitted by Robert J. Kavlock

The major duty of the Vice-President is to develop the scientific program for our Annual Meeting, and I have been knee-deep in that activity since Keystone. Helping me is an organizing committee composed of Sid Hunter, Ida Smoak, Tina Chambers, Paul Foster, Lamont Bryant and Phil Mirkes. While much work has already been done, we are now anxiously awaiting the onslaught of abstracts that will complete the program. This year, we have two new activities that I am particularly hopeful will make the meeting a true success and help us build toward the future. First, with the great help of Ida Smoak and Allen Lock, we have submitted an R13 proposal to NICHHD to support student travel to our meeting. Cross your fingers, because if funded, this will benefit our next generation of researchers, and should help attract more to the meeting over the years if we can make it a habit. The other major new activity is a satellite meeting on Genomics and Proteomics in Developmental Toxicology, which Phil

Mirkes has been putting together. We hope that this will be supported by NIH funding, and that many of you will plan to stay on Thursday and Friday to hear how the shape of science is changing in the era of the Genome Project.

Coupled with these activities, is a solid scientific program. Mike Collins and Michael Katz have organized the March of Dimes Symposium for Sunday afternoon around the issue of genetic susceptibility to environmental agents, Bill Slikker and Karen Augustine are chairing the Wiley-Liss Symposium on angiogenesis, Sid Hunter will be bringing us the latest on the reproductive risk of disinfectant by-products, Deb Hansen and Beth Yetley are organizing a session on the current status of folate supplementation (joint with the NBTS) and Ken Jones and Harpal Buttar are doing the Public Affairs Symposium on the risks of herbal medicines. In addition to the more formal sessions, workshops are being planned by Carole Kimmel and Deborah Rice on the interpretation of developmental neurotoxicity data, Dave Wise and Rakesh Dixit on toxicokinetics in developmental toxicity, and Bob Brent on the Society's Code of Ethics. And I shouldn't forget the work of the JoLynda Jones and the Continuing Education Committee, who are bringing us a course on signal transduction in morphogenesis. In response to input from the membership, the always-exciting student award platform competition will be held on Monday afternoon, with a keynote address by the Wilson Publication Award recipient for best paper of the year. Together with the programs of sister societies who are meeting with us ([OTIS](#), [NBTS](#), and this year, the [Behavioral Toxicology Society](#)), I hope you agree that this is more than adequate inducement to come to The Breakers, acquire some cutting edge knowledge, and, of course, re-establish old friendships. In keeping with the wishes of the membership, we have reduced the meal functions to the President's Reception, the Wilson Lunch, and the Banquet (plus, of course, the breakfasts and session breaks). By doing so, we have kept the registration virtually unchanged over the past few years. Keep on an eye our Web site for up-to-date information on the program.

As I begin to ponder life after the vice-presidency, I realize that the next major challenge ahead of me is staffing the committees that will have vacancies. As this is generally done at the Annual Meeting, I would really like to hear from the membership if you desire to serve in any particular capacity so that I can come to the meeting with good ideas. Just send me an email message (kavlock.robert@epa.gov), and I will add you to the list.



2000 Continuing Education Course

Submitted by JoLynda Jones

This year's Continuing Education Course will focus on signal transduction and the role of selected cellular signaling pathways in morphogenesis. The course lectures will be presented in sequence focusing on signal transduction from the outside of the cell (extracellular matrix and cell adhesion molecules), to the plasma membrane (growth factor receptors and heterotrimeric G proteins), cytoplasm (protein kinases), and nucleus (nuclear receptors and transcription factors). Each lecturer will review a selected signal transduction pathway and its role in normal and abnormal development as demonstrated by the use of specific inhibitors of the pathway, genetic mutations, and/or animal models such as knockouts.

Click [HERE](#) to view the CE program

In addition to the cell surface to nuclear review of cellular signaling outlined above, three signal transduction pathways known to play significant roles in development have been selected for review and discussion. The three pathways are vascular endothelial growth factor mediated signaling, the endothelin receptor mediated pathway, and peroxisome proliferator-activated receptor mediated signaling. This year's course will provide an overview of the field of signal transduction and the highlight importance of this field of research for Teratologists.





First Annual James G. Wilson Publication Award Presentation

Submitted by William Slikker, Jr.

The inaugural ceremony for the presentation of the James G. Wilson Publication Award is scheduled for Monday, June 26 at our Annual Teratology Meeting in Palm Beach. The annual award will be presented to the primary author of the best paper accepted or published in our journal *Teratology* in 1999/2000. The publication will be selected by the Publication Committee based on its originality, approach and impact. The essence of the winning publication will be presented and discussed by the primary author at the award ceremony.

Mrs. James G. Wilson has graciously agreed to present the First Annual Wilson Publication Award and will provide some of her impressions of the Society. Mrs. Wilson is a tireless supporter of the Society and through the James G. Wilson Foundation, has provided the generous resources for this prestigious award. We thank Mrs. Wilson and all those responsible for making the annual James G. Wilson Publication Award a reality.

James G. Wilson Publication Award Description

The James G. Wilson Publication Award will be presented for the best paper published in *Teratology* on an annual basis. The dual purpose of the award is to provide recognition to the authors of the best paper and to encourage authors trained in various disciplines to submit high quality manuscripts to *Teratology*. The primary focus of the publication must be on mechanisms of dysmorphogenesis and developmental susceptibility and will be judged on originality, approach and impact. At the time of submission, authors should indicate their desire to be considered for the award in a cover letter to the Editor. Nominations may also be put forward by the Teratology Section Editors. The Publication Committee will select the best paper from nominated articles accepted by or published in *Teratology* in 1999-2000. The award amount is \$1,500. The winner will also be invited to present the paper at the Annual Meeting of the Teratology Society. Travel costs, registration fee and funding for a one-year membership in the Society will be included for qualified applicants.



Three Penny Swing—Banquet Entertainment

Sponsored by WIL Research

Don't forget to pack your dancing shoes, because at this year's Banquet we're going to shake up The Breakers with music by Three Penny Swing, a 6-piece swing band led by teratologist/saxophonist Ed Carney. This sonic tour de force, with its mix of Y2K-compliant and traditional swing, rock-a-billy R&B, and Latin dance music, is sure to induce morphogenetic movements of even the most stoic teratologist. Whether you just nod your head, tap your toes, or conquer the dance floor, we know you'll be in for a good time!

In the meantime, a sneak peak of the band can be had at: www.threepennyswing.com.





Genomics, Proteomics, Bioinformatics and Developmental Toxicology in the 21st Century Satellite Symposium

Submitted by Philip E. Mirkes

Recent developments in genomics (global analysis of genes and their expression) and proteomics (global analysis of proteins and their expression) have set the stage for a revolution in biomedical science in the 21st century. It is now possible to simultaneously assess the levels of expression of thousands of different genes using DNA microarrays. Moreover, upon completion of the human genome project and the sequencing of the genomes of other species, it will be possible to analyze the expression of all genes transcribed in a specific cell/tissue/organ at any specific time in growth/differentiation/development. Similar developments in proteomics now allow investigators to assess the level of expression at the protein level. The ability to monitor tens of thousands of mRNAs/proteins will generate enormous volumes of data that need to be analyzed. This need has generated a new discipline called bioinformatics. Developments in genomics/proteomics/bioinformatics clearly offer unique opportunities in the field of birth defects research. To bring these developments to the community of teratologists and other interested scientists, a satellite symposium has been organized in association with the year 2000 Teratology Society meeting. This symposium, entitled Genomics, Proteomics, Bioinformatics and Developmental Toxicology in the 21st Century, will begin at 1:00 p.m. on Thursday June 29 and will end at 5:00 p.m. the following day. The program is now complete, with an outstanding list of speakers. The last half day will be devoted to talks emphasizing the application of these new fields to developmental and reproductive toxicology.

Click [HERE](#) to view the Satellite Symposium program

This symposium provides an outstanding opportunity to learn about the exciting new advances in genomics, proteomics and bioinformatics and how these advances will impact birth defects research in the next millennium. Make plans now to attend this satellite symposium. Registration (separate from the registration for the Teratology Society) and hotel registration forms can be downloaded here - [web page](#) or [pdf file](#). To facilitate the attendance of pre- and postdoctoral students to this symposium, the Teratology Society will award up to 10 \$500 travel awards. To apply for these travel awards, applicants should submit a brief (1-page) essay describing how they have or could apply approaches in genomics, proteomics, and/or bioinformatics in their research. A cover letter of application and the essay should be sent to: Philip E. Mirkes, Ph.D., Department of Pediatrics, 1959 NE Pacific Street, Seattle, WA 98195. Deadline for receipt of applications is May 1, 2000.



2002 Annual Meeting

The 2002 Teratology Society Annual Meeting will be held on June 22-27, 2002 in Phoenix, Arizona. Because this is off-season in Phoenix, we can obtain first-class meeting facilities in a resort setting with full amenities at a very reasonable price. Phoenix is easy to get to and offers a variety of recreational and cultural amenities as well as good shopping and eating. Watch for more details over the coming months.





Our Mission and Accomplishments Garner Strong Financial Support for the Society

Submitted by John Rogers

Even though it is still early, it appears as though we are on our way to a great year in terms of financial contributions to the Society. We have already received pledges in excess of \$25,000 in support of our annual meeting and the Society in general, with more to come. We are tapping new avenues of support, including grant proposals to NIH for student travel and for the satellite meeting on genomics and proteomics, as well as support from foundations including the Burroughs-Wellcome Fund and the March of Dimes. We are also increasing our base of corporate member supporters and continue to be graced with the support of our long-time President's Circle and Sustaining Member organizations. While I do not want to list individual contributions before all of our potential supporters have had the opportunity to join in, I think you will be very pleased to see their names at the meeting in Palm Beach. I think the outpouring of support should remind us all of the recognized value of our endeavors to a broad constituency that sees the Teratology Society playing a vibrant and critical role in battling birth defects, one of the largest and most difficult medical problems facing society today. Keep up the good work!



Report of the Panel on Scientific Boundaries for Review

Submitted by Thomas B. Knudsen

The Panel on Scientific Boundaries for Review (Boundaries Panel) conducted a comprehensive examination of the organization and function of the review process carried out by the Center for Scientific Review (CSR) of NIH. Revising the peer-review system is a mechanism by which the CSR peer review system will "maintain alignment with the shifting scientific landscape" [see FASEB Newsletter, volume 32, number 6, December 1999]. During phase 1, recommendations were developed for new Initial Review Group (IRG) guidelines based on four main criteria: (1) a review home for all contemporary research proposals; (2) sufficient breadth and cohesiveness to judge the entire scope of science; (3) related disease clusters; and (4) flexibility to adjust to needs of emerging subdisciplines. A draft report from phase 1 was posted for public comment on October 15, 1999 and the final report was released by the CSR in January 2000.

Phase 2 will involve a gradual implementation of IRG guidelines over the next two years, and progress may be followed at: www.csr.nih.gov. The vision of the CSR is to encourage cross-disciplinary research, risk-taking, and high technology. It intends to flush-out "pedestrian" applications and favor research that promotes the long-range health goals of society. Input was requested from FASEB Societies in response to the Draft for Public Comment. Dr. Knudsen (FASEB delegate) relayed concerns and opinions expressed to him by members of the Teratology Society, and David G. Kaufman, MD, Ph.D. (FASEB President) and Sidney H. Golub (FASEB Executive Director) discussed these with Ellie Ehrenfeld and senior staff of the CSR. One concern, for example, was that a broad-based system tends to select against studies with integrated objectives, with less fastidiously defined systems, even if their benefit to human health were greater and more proximate. Because phase 2 is open to opinions and concerns voiced by the external research community, the FASEB delegates must be aware of areas of importance to teratologists in general. Members of the Teratology Society are therefore urged to review the panel's report and, in particular, the detailed descriptions of the 24 proposed IRG study sections. Send comments pertaining to this report, or any other issue that might help FASEB develop science policy recommendations, to the FASEB delegates (Dr. Knudsen or Dr. John De Sesso).





HESI Issues Call for Neurobehavioral Data

ILSI's Health and Environmental Sciences Institute (HESI) is conducting a survey to evaluate the contribution of neurobehavioral testing to safety assessment studies (in experimental animals) conducted to fulfill international regulatory requirements. HESI's Developmental and Reproductive Toxicology Technical Committee is collecting study data via survey of industrial sources around the world. Survey results will be maintained on a database, in confidence, by a statistical consultant. The data will be analyzed to ascertain the overall contribution of each behavioral test to the study outcome and interpretation. Consideration will be given to the sensitivity of behavioral tests relative to other endpoints, and their specificity in characterizing neurobehavioral alterations. Once completed, the analysis of the database will be published in the peer-reviewed literature.

HESI welcomes inquiries about active participation in this project. Please contact Mr. David Sandler, HESI Senior Project Manager, at 202-659-3306 ext. 131 (phone), 202-659-3617 (fax), or DSandler@ilsi.org (E-mail) for further information.



Historical Control Database of Preclinical Developmental and Reproductive Toxicology Parameters

A Joint Project of MARTA and [MTA](#)

The Historical Control Database is a web-based project of MARTA (Middle Atlantic Reproduction and Teratology Association) and MTA (Midwest Teratology Association) that was developed by Mediatrope Internet Studio and is sponsored by Charles River Laboratories and Covance Research Products. The site is now available at hcd.org. The basic function of the web site is to allow entry and search capabilities of historical control developmental and reproductive toxicology data. Participating laboratories will enter control data from developmental and reproductive toxicity studies. The current site allows for the entry of standard cesarean section, delivery, and external, visceral and skeletal abnormality data. Users with access to the Internet will be able to search a number of parameters in each of the above areas of the database.

In order to enter data to the database, participating laboratories will be assigned an access code. Due a system limitation, each participating laboratory will be required to submit their own password to the HCD Administrator. The HCD Administrator will keep the password from each laboratory confidential. The HCD Administrator will then transfer the access code and password information for each laboratory into the database, and the laboratory can then enter data. Following each data entry session, another individual must independently verify the newly entered data from the same laboratory. After the data are verified to be correct, the contact person from the laboratory will inform the HCD Administrator by email that the data are ready to be added into the HCD. Once the message is received, the HCD Administrator will incorporate the newly entered data into the HCD main database. Since the HCD Administrator can only accept or delete a complete set of the newly entered data, there is no risk in providing individual password to the HCD Administrator because the administrator has no capability to edit any data in the database. Future upgrades to the HCD should allow individual laboratories to change password as needed.

Any laboratory interested in entering data to the HCD should contact the HCD Administrator, Dr. Kok Wah Hew of Purdue Pharma L.P. via email (email: kok-wah.hew@pharma.com), and provide him with a laboratory password for data entry. A laboratory access code will then be assigned to the laboratory. A detail instruction on how to enter data is posted on the home page at hcd.org.

