

Communiqué

Fall 2000

A Time for Change: Reorganization at CSR

Submitted by *Ellie Ehrenfeld, Ph.D., Director, Center for Scientific Review, NIH*

The recent explosion in basic scientific knowledge has provided us with exciting opportunities to apply that knowledge to human health problems. To take full advantage of these opportunities, the NIH peer review system must be prepared to adjust its structure and function to the rapidly-changing and increasingly complex scientific landscape.

Extensive outreach to the broad biomedical research community prompted the Center for Scientific Review (CSR) to examine the structure and organization of the review system, which now includes more than 140 study sections established over the past 50 years. There had never been a systematic evaluation of whether we had the appropriate study sections for today's—and tomorrow's—science. To assist us in this effort, CSR established, in 1998, a panel of broad and visionary scientists called the Panel on Scientific Boundaries for Review (PSBR) as a working group of the CSR Advisory Committee. The PSBR was charged with developing a comprehensive plan for the overall organization of the CSR Integrated Review Groups (IRGs) and study sections.

Throughout 1999, drafts of the PSBR Phase 1 Report were widely distributed for comments to professional societies, to scientific leaders, and on the Web. Phase 1 was a concept report, which included the goals of the review process, a proposed set of 24 IRGs, a set of guidelines for how review committees should function, and principles for the design of individual study sections to populate the new IRGs. The proposed IRGs would contain clusters of study sections related to biological problems associated with a system or disease, as well as basic scientific discovery and methods

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Salem Selected as Fellow

Harry Salem, long-time toxicologist and member of the SOT, has been selected to serve as the 2001 Congressional Science Fellow of the Society of Toxicology. He expects to begin his service following placement in mid-January.



Salem is currently Chief Scientist at Edgewood Research, Development & Engineering Center at the Aberdeen Proving Ground in Maryland. He brings a wealth of credentials to the experience including Master and Doctoral degrees in Pharmacology from the University of Toronto. He has extensive teaching experience and a lengthy list of publications.

Salem has often worked with a range of federal agencies and departments and currently serves as the Department of Defense representative on the Interagency Coordinating Committee for the Validation of Alternative Methods (ICCVAM) and the Interagency Committee on Neurotoxicology (ICON).

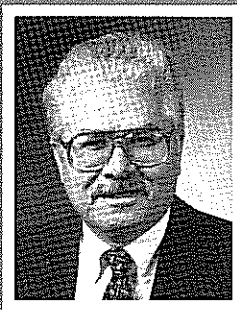
Salem is the third Fellow sponsored by SOT, following Brad Shurdut and Skip Matthews. The Congressional Science Fellows Program is part of an effort by SOT to increase its visibility in Washington and to support the use of scientific expertise in governmental decisions.

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PRESIDENT'S MESSAGE

A MEMBER CAN MAKE A DIFFERENCE



*Daniel Acosta, Jr., Ph.D.
2000-2001 President of the
Society of Toxicology*

New Long-Range Plan Core Purpose

In January 2000, the SOT Council met to review and update the SOT Long-Range Plan. In July, Specialty Sections and Committee comments were incorporated. Now, Council would like to get your input on the newly developed plan. The Society of Toxicology's newly stated core purpose is "to enhance human, animal, and environmental health through the science of toxicology." The complete LRP, including goals and strategic objectives can be found on the Web site at www.toxicology.org. The SOT Council asks that you read the plan and provide us with your feedback.

In my previous messages, I have emphasized that the Society of Toxicology is a vibrant and strong organization because of the diversity of talents of our membership. More than half of our annual income is derived from the success of the Annual Meeting in offering a sound scientific and educational program to the registrants. The planning, organization, and implementation of each Annual Meeting is based on the excellent cooperation and interaction of members of several committees with the staff at SOT Headquarters: Program, Continuing Education, Placement, Education, Awards, Public Communications, Risk Assessment Task Force and several others. Ideas for symposia, workshops, CE courses, poster discussions, and roundtables come directly from individual members who usually work closely with their Specialty Sections to submit official proposals for consideration to the Program and CE Committees. My purpose in stating this obvious process, which is known by many of our members, is to stress that the focus of SOT is (and always should be) to promote the educational, scientific, and professional development of its members.

Through the years I have had many conversations with members on how one may become more active in SOT. There is a perception by some of our members that certain groups or cliques within the Society determine the future leadership and direction of the organization. I have heard from time to time that SOT is pro-industry; that SOT is top-heavy with academic types; or that SOT neglects the government sector of toxicologists. When I first joined SOT in the late '70s, I must admit that I had some misconceived notions on how SOT operated and shared some of those thoughts described above. So what changed my view on SOT and how did I become active in the organization?

By describing my personal experiences in SOT, I hope to provide information and advice on how any member can become more involved in the organization and to show, in hindsight, how my approach may not be the optimal way of becoming an active member in SOT. Although my Ph.D. advisor was a member of SOT, he never encouraged me to present papers at the Annual Meeting during my four years of graduate studies. Because of my interest in cell culture and *in vitro* toxicology, I became a member of the Tissue Culture Association (TCA) before I joined SOT. Through my activities with TCA, I promoted and developed proposals for interactive symposia on *in vitro* toxicology between the two organizations. I later developed a CE program on advancements in *in vitro* toxicity testing with cell culture systems (and for those who have worked on the development of a CE program, you know the work and time demands of such a project). However, I believe that these two efforts gave me more visibility with the leadership of SOT. I continued to volunteer for such activities as chairing general poster sessions, poster discussion sessions, and platform sessions (each year a form is sent to members to volunteer for such activities, as well as to serve on appointed committees; I encourage you to fill out these forms). I later was asked to serve on the Program Committee, was nominated and elected to the Membership Committee; was nominated and elected to Council, and finally was nominated and elected as Vice President-elect.

Thus, one may discern a certain pattern in my personal experiences on how to become more involved in SOT activities. First of all, a member must take the first step and volunteer to do the ground work of meeting activities and general committee work, which is responsible for the overall operation of the Society. It is very rare for a member to be appointed to a major committee or elected to Council without some evidence of volunteer activities. Based on my experiences, I would advise a member to initially become more active at the local level (e.g., the Regional Chapter), rather than trying to do something first at the national level. SOT was much smaller 20 years ago and thus was easier for me to become involved. I would also suggest that a member join a Specialty Section; it is much easier to volunteer for activities when you have a special interest in a particular facet of toxicology. Volunteer for such mundane and very necessary activities as manning the registration desk at a Chapter or Specialty Section meeting, collecting dues and fees, organizing the logistics for the hotel, meeting room, and food, etc. Agree to be nominated for some of the lesser

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positions, such as secretary or councilor for a Regional Chapter or Specialty Section after "putting in your time" with some of those activities described above.

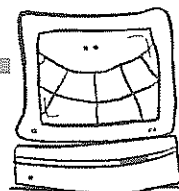
Through your Specialty Section take the initiative and develop an idea for a symposium, CE course, roundtable, or workshop, which can be submitted for consideration for the Annual Meeting. Everyone appreciates the time and effort that is needed to organize a program and to obtain quality speakers. Other than serving as an officer of a Regional Chapter or Specialty Section, it is this involvement in the program of an Annual Meeting that brings a member recognition and credibility as an "involved and active member" of the Society.

The next stage in becoming more participatory in the inner working of the organization is to serve on a major appointed committee, and it is at this point that I hear about cliques and favoritism in the appointment of members to these committees. I cannot deny that this has occurred in the past and may continue to take place in the future, but I know that all of the presidents that I have worked with try to appoint members with diverse backgrounds and viewpoints. As Vice-President before I became President, I had the responsibility of appointing new members to vacant lines, and I also established a new ad hoc committee to develop ideas for celebrating our 40th anniversary in San Francisco. I made 42 appointments to 13 committees with the following demographics: 21 males and 21 females, which included seven individuals from under-represented groups, and 2 students appointed to a committee for the first time. I must honestly admit that I did not consciously make an effort to have the appointments come out 50-50 male/female, but was pleasantly surprised when I checked the statistics. Many of these individuals I did not know personally, but learned from others about their contributions and activities in SOT. In fact, I looked closely at the volunteer forms that members returned to SOT Headquarters. [Editor's note: This form is available on the SOT Web site and is inserted with the Communiqué.]

I want to highlight one of my appointments because it illustrates how a member can be recognized and "rewarded" (perhaps enticed is a better word) to serve on a major committee. As Chair of last year's Program in Philadelphia, I had the opportunity to work with a co-organizer of a workshop, **Hilary Sheevers**, who went to extraordinary efforts to put together a program on "Toxicological Considerations of Pharmaceuticals for Pediatric Patients." She was able to bring together an excellent cast of speakers from industry, the government, and private consulting, and due to some problems with cancellations with some of the speakers was able to find excellent replacements in a short and hectic period of time. Up to that point, I had never met Hilary, only spoken to her on the phone, and finally talked to her briefly in Philadelphia. But from this initial introduction of Hilary's abilities on the workshop, I knew she would be an excellent committee member and

I asked her to serve on the Committee on Public Communications. (Hilary, I hope you do not mind my use of your experience with SOT as part of my article.)

Volunteer Forms are available on the Web site at www.toxicology.org



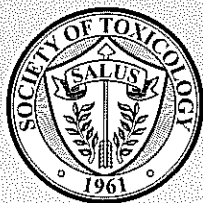
In conclusion, a member of SOT can have a significant impact on the organization by taking a personal interest in the operation of the Society and by volunteering to help in the many work activities that need to be completed. However, a member must take that first step by asking what has to be done and by helping with the many tasks at hand. I would encourage members who are already active in SOT to recruit other members to become involved with the organization. Please feel free to contact me by e-mail at daniel.acosta@uc.edu or by phone, (513) 558-3326, with your ideas and suggestions on how to make SOT a better place for its members.

Daniel Acosta
Daniel Acosta, Jr., Ph.D.
2000-2001 President

Getting to Know You

Responding to an initiative from **President Dan Acosta** and the Council, the Membership Committee has developed a plan to use the 2001 Dues Renewal Forms to collect demographic information about the membership. The goal is to understand the make-up of the Society in order to provide the best possible service to the membership. Its broad diversity is apparent, with groups of members involved in government, industry, and academia, but the particular interests of groups of members are not clear. "We really do not know how many of our members within these various folds are focused on basic research vs. safety assessment," said committee chair **Richard Bull**. He pointed out that the Society has not had a way of identifying subsets within the membership to address the needs of all the groups.

The Committee has been careful to assure members that their participation is voluntary. The information obtained will not be sold or rented to outside groups. Instead, all information will be used to measure success in meeting long-range SOT goals, for grant applications, or for other internal SOT tasks.



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Deadlines for Upcoming Issues:
December 3, 2000 (Special Issue)
April 3, 2001 (Spring Issue)
June 2, 2001 (Summer Issue)

40th Annual Meeting Information

2001

SOT activity heightens at Headquarters and among various committees with the approach of the 2001 Annual Meeting. SOT members should begin thinking about their own plans as the San Francisco location promises to make registrations for this Annual Meeting more numerous than ever. Up-to-date Annual Meeting information and forms are available on the SOT Web site (www.toxicology.org). The Program and The Toxicologist (the special edition of Toxicological Sciences) will be mailed to members in February 2001. Be sure to check the SOT Web site for complete information and updates.

Exhibits

If your products or services are science related, the decision makers you need to reach will be at the 2001 Society of Toxicology Exhibition.

The SOT Annual Meeting Exhibition offers your organization several opportunities to bring its name to the attention of toxicologists. Come and see for yourself why your competitors continue to exhibit at the SOT Annual Meeting.

If you would like an Exhibition Package sent to you, please contact **Clarissa Russell Wilson** at the SOT Headquarters office or e-mail her at clarissa@toxicology.org. Exhibit space is already over 80 percent sold out.

Ancillary Meetings

Reserve space for your Ancillary Meeting now! Regional Chapters, alumni organizations, exhibiting companies, and SOT members who wish to hold a meeting or social function during the week of the Annual Meeting should complete an Ancillary Meeting Form and return it to **Patricia Strong** at SOT Headquarters no later than **December 1, 2000**. Space will be assigned on a first-come, first-served basis, after SOT scientific and social programs have been accommodated. Forms are available on the SOT website.

Student/Post-Doctoral Fellow Mixer

The Society SAC is sponsoring a mixer for students and post-doctoral fellows on Sunday, March 25, from 7:30 p.m.-8:30 p.m., immediately following the Welcoming Reception. This event is a great opportunity to meet fellow students from around the country and find out what the Society is doing to increase student involvement. Complimentary food and soda will be provided. A cash bar will be available. Meeting badges are required.

Minority Undergraduate Program at SOT

The Subcommittee for Minority Initiatives (SCMI) is continuing the program at the Annual Meeting for undergraduates from groups under-represented in the sciences. About 30 students and advisors will be selected from institutions around the country for travel awards to support attendance. Minority students from institutions in the San Francisco area will also be invited to participate. Student/mentor groups will meet Saturday night at a special reception. Sunday the students will hear introductory talks on toxicology research, receive suggestions for preparation for graduate school, and meet with toxicology program directors. A special poster session will be held on

Monday morning. Several students who participated previously in the program will be invited back to serve as peer mentors.

This program has been possible due to the generous efforts of many SOT members. **Dwayne Hill** is currently recruiting mentors and would like to hear from volunteers willing to share their enthusiasm for a career in toxicology. You can contact him at Morgan State University by phone at (443) 885-1865. NIH-MARC funding as well as contributions from Johnson and Johnson and other Annual Meeting Sponsors have been important supplements to SOT support for the minority program through the last decade. **Marion Ehrich** and **Myrtle Davis** submitted the last NIH-MARC funding request.

NEW Program for Local Undergraduate Students

To increase undergraduate student interest in toxicology and graduate school, SOT is piloting a new program at the 2001 Annual Meeting. The Education Committee is planning special activities for selected undergraduate students and their advisors from institutions in the San Francisco region. Successful applicants will demonstrate interest in graduate school and toxicology, as well as the academic preparation indicating probable success in graduate school. This new program will provide opportunities for local students to hear introductory level talks on topics in toxicology, interact with toxicology mentors, and participate in other meeting activities. Applications are available on the SOT Web site and will be accepted until all spaces are filled.

SOT Annual Meeting Hotel Commissions

Housing information is available on the SOT Web site (www.toxicology.org). Simply go to the home page and select the Annual Meeting menu option.

A block of rooms is reserved at several hotels that offer discounted room rates. The discounted rates include hotel commissions, but the rates are still below the hotels' listed prices. SOT continues to receive the commissions, using the credits to help support long-range planning initiatives and to cover the cost of the convention center. *Thank you for contributing to this important source of revenue.*

Media Resource Training

Imagine yourself in front of a camera or being interviewed by a reporter. You must answer challenging questions for the general public. This situation can arise at any time for any scientist.

The Committee on Public Communications has again arranged for Media Resource Training at the upcoming Annual Meeting. As in the past, Kalish Communications will provide both general and specific training for members on Sunday, March 25. The details are still being arranged, but members are urged to plan to attend. The training is especially important for those who are, or wish to become, Media Resource Specialists for the Society.

Register On-line at
www.toxicology.org

MEMBER NEWS

CE Course in Poland

Submitted by Jennifer Schmidt

When my doctoral advisor, **Dr. Chris Bradfield**, e-mailed and asked, "Would you like to go to Poland?" I agreed even before he could explain what was involved. Dr. Bradfield and I had developed a continuing education course on gene targeting for the Annual Meeting in New Orleans. He told me that IUTOX had agreed to sponsor presentation of this course at the Polish Society of Toxicology meeting in Bukovina Tartzanska. Dr. Bradfield knew I had enjoyed presenting the course in New Orleans and would be happy to do so in Poland. What he didn't realize was that I had wanted to visit Poland for a long time. Despite my German name, my maternal grandparents came from Poland, and since I was quite close to them, I was raised with many Polish foods, customs, and traditions. When it came time to make the arrangements I decided to take my mother with me to Poland — she had never visited her ancestral country!

We had a wonderful time in Poland. The meeting location in Bukovina Tartzanska could not have been more beautiful. This small town is perched high up in the Tatra Mountains of Southern Poland, with breathtaking views in all directions. During breaks in the meeting we went hiking in the local mountains and explored the nearby town of Zakopane. The members of the Polish Society of Toxicology were friendly and welcoming and did their best to make two Americans feel at home. I appreciated the kindness they showed my mother, helping her refresh her Polish and incorporating her into the meeting activities. Gene targeting is still an emerging technology in Poland and the Society members were very interested in learning more about the uses of these techniques.

Hopefully my presentation was able to give them a good overview of how to generate, analyze and interpret targeted mouse mutations. I made several new friends at the meeting and have already arranged a scientific collaboration. After the meeting my mother and I remained in Poland for several more days, visiting Krakow, Auschwitz and Wielicka. During our flight home my mother called this her "trip of a lifetime." I had to agree!

Thank you to the Society of Toxicology, Toxicology Excellence for Risk Assessment and the International Councils of Scientific Unions for sponsoring this presentation.

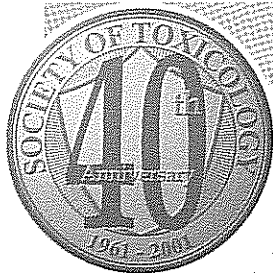


Dr. Andrey Sukhodub
and Dr. Jennifer Schmidt

New Requirements for Student Membership

Changes in requirements for student membership status are:

- Only one letter from a Full SOT Member is required for sponsoring of a student application.
- Members of Council or the Membership Committee are no longer restricted from sponsoring Student Membership applications.
- Applicants may be either full-time or part-time students in a graduate program.
- A person cannot qualify for student status for more than 10 years.



HAPPY BIRTHDAY SOT!

The Society of Toxicology celebrates the 40th anniversary of its founding at the San Francisco Annual Meeting, March 25-29, 2001. Under the direction of **President Dan Acosta**, a committee has been organizing activities to commemorate that milestone. The major event will be a 40th anniversary celebration on Sunday evening, March 25, following the conclusion of the Continuing Education courses. There will be a brief introduction by President Acosta, a short history of SOT, and the presentation of the SOT Awards. Past winners will present each award. The celebration will close with the traditional transfer of the Gavel of

Office from Dan Acosta to incoming **President Dave Eaton**. A welcoming reception will follow immediately afterwards.

The registration area will contain posters with illustrations of SOT's growth in membership and in the size and complexity of the Annual Meeting. There will also be a poster with photos of the founders and past presidents. The 40th Anniversary emblem will display prominently on meeting materials and celebratory t-shirts and memorabilia. Other special posters are sought from the Specialty Sections, Regional Chapters, and the Women in Toxicology project illustrating their unique contributions to the growth of the Society and the profession.

Other emerging plans include special recognition of the Society's anniversary by the host city. The first meeting of SOT west of the Mississippi was in San Francisco in 1978 and the entire meeting was accommodated in a single hotel. Also under development is a list of 40 major contributions of toxicology to society. The Specialty Sections and Council, among others, have been asked to submit nominations for this list. Any member who wishes to contribute to this compilation can send up to five suggestions to SOT Headquarters by e-mail to be forwarded to the Committee.

Surviving founders have received special invitations to attend. They and the past presidents will be recognized by special meeting badges. Look for them and make their acquaintance.

Welcome

Erika L. Abel, B.S.
David C. Ackley, Ph.D.
Jonathan M. Akins, Ph.D.
Napoleon Alejandro, Ph.D.
Saeed Alghamdi, M.Sc.
Theresa C. Allio, Ph.D.
Clinton D. Alfred, B.S.A.
William G. R. Angus, Ph.D.
James M. Antonini, Ph.D.
Karen A. Augustine, Ph.D.
Michael A. Babich, Ph.D.
Alaa F. Badawi, Ph.D.
Drew Ashley Badger, Ph.D.
Elisabeth A. Bailey, Ph.D.
Lisa J. Bain, Ph.D.
William S. Baldwin, Ph.D.
David A. Basketter, D.Sc., MRCPath, FIBiol
Michael S. Battalora, Ph.D.
Ronald E. Baynes, Ph.D.
Christina A. Beck, B.A.
Melissa Beck, B.S.
Cassandra D. Belair, Ph.D.
Jeffrey C. Bemis, B.S.
Jamie C. Benedict, B.S.
Ludmila I. Bernstam, M.D., Ph.D.
Patricia M. Bittner, M.S.
Leonard F. Bjeldanes, Ph.D.
Carmen D. Booker, B.A.
Stephanie L. Born, Ph.D.
James J. Bottesch, B.S.
Stacy Branch, D.V.M., Ph.D.
Kimberly C. Brannen, B.S.E.H.
Karrie A. Breneman, D.V.M., Ph.D.
Barry J. Brock, Ph.D.
Thomas C. Bruff, M.D., M.P.H.
Monica R. Brzezinski, Ph.D.
David L. Buchanan, Ph.D.
Bonny Lewis Bukaveckas, Ph.D.
Lynn C. Burgess, Ph.D.
Jeanine L. Bussiere, Ph.D., D.A.B.T.
Ebru Caba, M.Sc.
Ellen A. Cannady, Pharm.D.
Sergio Cantoreggi, Ph.D.
Ling Cao, M.D.
David O. Carpenter, M.D.
Michael J. Carvan III, Ph.D.
Katherine W. Chan
Naresh Chand, D.V.M., Ph.D.
Sanjay Chanda, Ph.D.
Leslie Chaney, Ph.D.
Yi Hsin Chang, Pharm.D.
Hua Chen, Ph.D.
Mingli Chen, M.S.
Tao Chen, Ph.D.
Christopher R. Chiaro, B.S.
Andrew S. Chiu, M.Sc.
Supratim Choudhuri, Ph.D.
Nancy D. Claude-Bouzon, Ph.D.
Thea Clipson, M.S.
Amedeo Columbano, Ph.D.
Daniel J. Conklin, Ph.D.
Lara A. Cook, B.S.

Emanuela Corsini, Ph.D.
Lydia R. Cox, Ph.D., D.A.B.T.
David William Cragin, Ph.D., D.A.B.T.
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Charles J. Czuprynski, Ph.D.
Michele M. Danne, B.A.
Mary Patricia De La Rosa, B.S.
Frederik A. De Wolff, Ph.D., E.R.T.
Gregory K. DeKrey, Ph.D.
Donna L. Dehn, M.P.H.
Alice M. Dempster, Ph.D.
Dolores Diaz, M.S.
Heather V. Dowty, Ph.D.
Kevin L. Dreher, Ph.D.
Andrew C. Dudley, B.S.
Angie B. Dull, B.S.
Rana Dutta, B.A.
Joseph A. Dybowski, M.P.H., Ph.D.
Ayman Ouda El-Kadij, Ph.D.
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James Greg Falls, Ph.D.
Rolf Fautz, Ph.D.
Heather Anne Ferguson, B.Sc.
Vanessa Ann Thomas Fitsanakis, B.S., M.Sc.
Edward J. Flynn, Ph.D.
Roy Forster, Ph.D.
Eugene P. Foster, Ph.D.
Michael Foster, Ph.D.
Marie-Odile Fouchecourt, Ph.D.
Erika R. Frank, M.P.H.
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Richard W. Freeman, Ph.D.
Alfred Fuciarelli, Ph.D.
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Daniel B. Gant, Ph.D.
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Cynthia Graham, Ph.D.
Stephen G. Grant, Ph.D.
Roy T. Grecko, B.S.
Christopher L. Gudeman, B.S., M.S.
Grace L. Guo, M.B., M.P.H., M.S.
Tai Liang Guo, Ph.D.
Ashok K. Gupta, Ph.D.
Wendy T. Haines, B.S.
Barbara F. Hales, Ph.D.
Robert G. Halgren, Ph.D.
N. Christine Halmes, Ph.D.
Bonnie T. Hamby, B.S.
Bora Han, B.A.
Umesh M. Hanumegowda, B.V.Sc., M.S., Ph.D.
Belinda S. Hawkins, B.S.
Sheila M. Healy, B.S., M.S.
David R. Helton, M.S.
Kristin L. Henson, D.V.M.

Meleik A. Herbert, Ph.D.
Danyel P. Hermes, B.S.
Kok-Wah Hew, Ph.D.
Eamon J. Hickey, B.S.
Mark J. Hickman, A.B.
Theresa Hoffman-Till, Ph.D.
Debie J. Hoivik, Ph.D., D.A.B.T.
Darryl B. Hood, Ph.D.
Kimberly A. Hooper, Ph.D.
Keri J. Hopkins, Ph.D.
David N. Hovland, Ph.D.
Marcia D. Howard, B.S.
Paul C. Howard, Ph.D.
Xing Hu, B.S.
Yue-Wern Huang, Ph.D.
Janis E. Hullä, Ph.D., D.A.B.T.
Gaku Ichihara, Ph.D.
Hideki Igisu, M.D., Ph.D.
Nancy A. Jeter, M.S.
Ann M. Johnson, M.S.
Victor J. Johnson, M.Sc.
Nancy L. Judd, M.S., A.B.
Mark Judkins, Ph.D.
Abdelrazak Kadry, Ph.D.
Lisa M. Kamendulis, Ph.D.
Edward Douglas Karoly, M.S.
JuLee K. Kaster, Ph.D.
Naruo Katsutani, Ph.D.
Toshihiro Kawamoto, M.D., Ph.D.
Anna S. Keck, M.S.
Raymond A. Kemper, Ph.D.
Julie C. Kern, B.A.
John W. Kille, Ph.D.
Doyeob Kim, M.S.
Hyaehwan Kim, M.P.H.
Sarocha Kingkeohoi, M.S.
Shawri J. Kinser, B.S.
Kyle L. Kolaja, Ph.D.
Todd M. Kolb, B.S.
Kimberly A. Kramer-Stickland, Ph.D.
Ramez Labib, B.S.
Michael D. Laiosa, B.S.
Jeffrey Lakritz, D.V.M., Ph.D.
Charles E. Lambert, Ph.D.
Jason C. Lambert, B.S.
Robert W. Lange, Ph.D.
Charles A. Lapin, Ph.D.
Paula J. Lapinskas, Ph.D.
Christen P. Larsen, M.S.
B. Paige Lawrence, Ph.D.
Steven A. Leadon, Ph.D.
Ji-Eun Lee, B.S., M.S.
Kyeonghee Monica Lee, Ph.D., D.A.B.T.
Pamela J. Lein, Ph.D.
Li Li, Ph.D.
Igor Linkov, Ph.D.
Jie Liu, Ph.D.
Xiuli Liu, M.S.
Zhen Lou, M.S.
Tara N. Lovekamp, B.S.
Ulrike Luderer, M.D., M.P.H., Ph.D.
Gabriele Ludewig, Ph.D.

The Society of Toxicology Welcomes all Year 2000 New Members!

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SPECIALTY SECTION NEWS

NEW Dermal Toxicology Specialty Section Student Award

The SOT Dermal Toxicology Specialty Section (DTSS) is pleased to announce that the DTSS and Avon Products, Inc. will sponsor a student award for skin-related research in humans or *in vitro*. The award will recognize outstanding student candidates for their contribution to advancing the understanding of dermal processes using methods alternative to animal testing. Eligible and interested students are encouraged to apply. Applications will be judged based on abstracts and posters presented at the SOT annual meeting. Winner(s) will be announced at the annual meeting of the Dermal Specialty Section and will receive cash awards and diplomas. The deadline for submission of abstracts is January 10, 2001. For more information, check out the New Student Section or the Specialty Section pages of the SOT Web site or contact **Dr. Jeffrey Laskin**, DTSS Award Committee Chair (jlaskin@EOHHSI.rutgers.edu) or **Dr. Eugenia Theophilus**, DTSS Award Committee Co-Chair (eugenia.theophilus@avon.com).

Support the

TEF Toxicology
Education
Foundation

Contributions to the TEF General Fund support public outreach for toxicology

Send contributions to: TEF
1767 Business Center Drive,
Reston, VA 20190

Science and the Animal Welfare Act

Submitted by Animals in Research Committee

The United States Department of Agriculture (USDA) is one target of those who purport to defend the rights of laboratory animals while working relentlessly for the elimination of all animal experimentation. USDA is the federal body responsible for the regulations that implement the Animal Welfare Act. These regulations include a provision to track and report those experiments that cause pain to animals and to report regularly the number of animals experiencing pain.

Alternatives Research and Development Foundation, a group affiliated with the American Antivivisection Society, led a lawsuit in 1998 against **Daniel R. Glickman**, Secretary of the USDA, and **W. Ron DeHaven**, Administrator of USDA's Animal and Plant Health Inspection Service (APHIS). The basis for the suit was the USDA's failure to include rats, mice, and birds as species in which pain is reported.

More recently, the APHIS identified "requests from the biomedical research community and animal advocacy groups," as the rationale for a notice placed in the Federal Register by APHIS that proposes to amend the regulations implementing the Animal Welfare Act. This notice includes a proposal to add a definition of "distress" in the regulations (currently there is none) and to modify the way pain and distress is classified and reported. APHIS stated, in part:

"Professional standards regarding the recognition and relief of animal pain and distress have changed significantly since we established our classification system. Some biomedical research professionals and animal welfare advocates believe our classification system is outdated and inadequate. A different categorization system could produce data that more accurately depict the nature of animal pain or distress and provide a better tool to measure efforts made to minimize animal pain and distress at research facilities."

(Federal Register Vol. 65, No 132, Monday, July 10, 2000)

In response, the Federation of the American Societies for Experimental Biology (FASEB) solicited representatives from their member societies and other groups to attend a workshop on August 6 and 7, 2000, at the FASEB campus in Bethesda, Maryland. This workshop was entitled "Setting the Agenda on Animal Welfare: A Workshop on Science and Policy." **Stephen DiZio**, Chair of the Animals in Research Committee, attended on behalf of SOT.

At this workshop, FASEB reported that the USDA is planning to adopt, on an interim basis, this working definition of distress:

"Distress refers to a state in which an animal cannot escape from or adapt to the internal or external stressors or conditions it experiences, resulting in negative effects on its well-being."

Most scientists view such a definition as subjective and unusable. As illustrated by the many well-prepared scientific presentations given at the workshop, a scientist can monitor physiologically a continuum of stress, followed by distress, followed by pain in animals, with no bright line defining the boundaries of the three states. It was clear from the workshop that, as stated by APHIS, professional standards regarding the recognition and relief of animal pain and distress have indeed changed significantly. Given this knowledge, a scientifically sound mechanism of defining and reporting pain can be developed and implemented, not by regulatory agencies but by responsible professionals. Additional regulations with rigid definitions often only lead to an unnecessary burden on the research community with no real benefit to laboratory animals.

The Society of Toxicology *Guiding Principles in the Use of Animals in Toxicology* makes no distinction regarding the species to which they apply. The *Code of Ethics* emphasizes that the spirit of "law regulations, and ethical standards" relating to

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NIOSH 2000 Summer Student Program

Submitted by Anna Shvedova, Ph.D.

Understanding of Toxicology is one of the key goals of the Society of Toxicology's Long-Range Plan. One major way that SOT fosters this goal is through high school teacher educational activities and involvement and leadership in undergraduate/graduate educational programs. The educational activities of the Allegheny-Erie Regional Chapter are flourishing and contribute to the overall growth and success of SOT and the discipline of toxicology. The National Institute for Occupational Safety and Health/Health Effects Lab Division (NIOSH/HELD) Summer Student program, introduced in the summer of 1998 by Drs. Anna Shvedova, Jean Meade, and Albert Munson, is in the autumn of its third session, and displays a pattern of increasing success. We are accomplishing our primary mission of providing science students with insight into the field of toxicology and occupational safety and health, through challenging and educational laboratory experiences, and through an understanding of the structure and function of NIOSH and the CDC.

HELD summer students arrive in May or June and typically stay until early August, when they return to school. In these 8 to 10 weeks, students encounter a myriad of learning opportunities, in and outside of the laboratory, which are designed to expand their overall knowledge base and prepare them for their academic and professional careers. Students this season benefited from a variety of seminars and workshops that helped them develop knowledge and skill, as well as organized social events that provided them with an opportunity to build relationships with their peers. Functions included a NIOSH/HELD orientation and a summer student picnic; seminars included "The Scientific Method and

Experimental Design," "The Tale of Two Cultures, Consilience, and the Meaning of Life," and "Why Stress is a Problem in Determining Toxicity;" workshops included "Using PowerPoint Successfully," "CV/Resume Writing: How to successfully Market Yourself," and "Virtual Reality Demonstration."

Our final event was the students' poster and platform presentations of their summer projects. It was a noteworthy occasion. The outstanding level of performance by students and their mentors was revealed in the superb content and professional presentation of the work. The event demonstrated that, not only was the work educational for the students, it resulted in real progress in the laboratory.

When our students leave the HELD facility, they return to their various academic programs. Our students are enrolled in Bachelors, Masters, and Ph.D. programs, as well as pre-med and medical programs. They may choose from many career paths including public health, private medicine, pharmacology, forensic science, technical writing, teaching, veterinary medicine, immunology, business administration, and electrical and computer engineering.

The students' response to the program has been overwhelmingly positive. Concerning the experience at HELD, one student said "The knowledge I gained this summer was more than lab techniques and data analysis; though it was this too. I learned about the need for focus, about devotion to one's work, about that sublime fraternity that exists among colleagues, about respect for life, and about what it means to be part of a truly good scientific enterprise."

Animal Welfare Act

Continued from page 8

human and animal welfare be followed, so that all animals are used in a humane and responsible manner. However, regulations that add mice, rats, and birds to those species for which pain and distress must be reported will divert resources from scientific inquiry to reporting, especially in smaller institutions with more limited means.

In the overwhelming majority of institutions, researchers conducting animal experimentation submit experimental protocols to their institutional animal care and use committees. The consensus of the workshop was that the responsible investigator and the animal care and use committee are best equipped to handle application of professional standards and the minimization of pain and distress. With these institutional controls, sound scientific research without compromise of data quality can be maintained in an atmosphere of humane and responsible animal use. [Editor's Note: The case has been resolved as of press time. See the SOT Web site for details.]

In Memoriam

Charles Darnell Proctor, toxicologist and long-time member of the Society of Toxicology and the Society of Pharmacology and Experimental Therapeutics, died on July 25, 2000. Proctor was Senior Consulting Toxicologist for the National Library of Medicine, National Institute of Health, until his death. He had retired from his position as Associate Dean and Charter Professor of Pharmacology at Mercer University in 1988. His teaching career also included service at Meharry Medical College and the Stritch School of Medicine in Loyola University of Chicago.

In addition to publishing 84 research papers, Proctor received, among other honors, Phi Beta Kappa and honorary doctorates from Florida A&M University and Fisk University. He earned the B.A. and M.A. in Chemistry from Fisk University and the Ph.D. in Pharmacology and Toxicology from Loyola University in Chicago.

PLACEMENT SERVICES

REGULATORY REVIEW PHARMACOLOGIST/TOXICOLOGIST

The FDA, Center for Drug Evaluation and Research, is recruiting for multiple positions as pharmacology/toxicology reviewers. Reviewers are assigned to multidisciplinary scientific teams that evaluate studies submitted by pharmaceutical manufactures in support of New Drug and Investigational New Drug Applications (IND/NDAs). Reviewers evaluate the quality and adequacy of manufacturers' study data, determine the validity of the safety database to support development and marketing, and monitor the scientific data to update labeling of marketed drugs. The basic requirement for this position is a degree in biological, medical, veterinary or physical science, or pharmacy. An advanced degree in pharmacology/toxicology and experience in pharmaceutical development is highly desired for these positions. Excellent oral and written communication skills are essential. Candidates for Civil Service or Commissioned Corps appointments must be U.S. Citizens. Permanent U.S. residents can apply for Staff Fellowship appointment. Civil Service salary range; GS-11, \$42,724 to \$55,541; GS-12, \$51,204 to \$66,564; and GS-13, \$60,890 to \$79,155, including an excellent benefits package. For additional information about CDER and these positions, see www.fda.gov/cder/ or send resume with a cover letter indicating that you are applying for a pharmacology/toxicology position and specifying area of interest under source code 100055 to: Food and Drug Administration, MPN I, 7520 Standish Place, Room 211, Rockville, Maryland 20855, Attn: CDER Recruitment. FDA IS AN EQUAL OPPORTUNITY EMPLOYER WITH A SMOKE FREE ENVIRONMENT.

TOXICOLOGIC PATHOLOGIST

Position available for a full-time toxicologic pathologist at a contract research laboratory located in beautiful Research Triangle Park, NC, close to Raleigh and Chapel Hill. D.V.M. and ACVP certification required with Ph.D. and experience in rodent toxicologic pathology preferred. Experience in immunohistochemistry and molecular pathology a plus.

The successful candidate will be responsible for evaluating both subchronic and chronic toxicity/carcinogenicity studies in rats and mice and peer reviewing pathology data and reports. Other responsibilities include: organizing, coordinating, and conducting NTP peer review pathology working groups (PWG); providing gross and histopathological evaluations; preparation of PWG summary reports or pathology reports, quality assessment of pathology specimens. Some travel may be required. Salary is competitive and commensurate with experience.

ILS offers competitive salaries, a complete benefits package, and excellent growth potential. Questions concerning the position please contact either Dr. Shelley Ching or Dr. Tom Goldsworthy at (919) 544-4589. Interested candidates should mail/fax/e-mail a resume with salary requirements to: Jason Shannon, ILS, P.O. Box 13501, Research Triangle Park, NC 27709; fax (919) 544-5091; e-mail: jshannon@ils-inc.com. Refer to Job Posting #PG22/263. EOE.

STUDY DIRECTOR

Sierra Biomedical (SBI), a Division of Charles River Laboratories, Inc., is a contract research and development company that provides broad-based scientific and technical services in toxicology and pharmacology to clients in the pharmaceutical, biotechnology and related industries. SBI is in an exciting phase of growth and diversification, and has immediate openings for Study Directors at its facility in Reno, Nevada. The laboratory, which specializes in non-human primate research, offers exceptional professional opportunity in the midst of the beautiful Reno-Lake Tahoe-Sierra Mountain recreational area.

The successful candidate will join an internationally recognized team of scientists in toxicology, clinical pathology, and pathology to design, conduct and interpret a variety of studies in toxicology, safety pharmacology and pharmacokinetics. SBI-Reno conducts a comprehensive range of safety assessment studies, ranging from acute to chronic in duration, including reproductive toxicology, in support of INDs and NDAs for drugs and biologics. In addition to duties as a Study Director, the candidate would help clients develop protocols for studies and would be expected to understand the regulatory implications of the results generated in the experiments.

The ideal candidate would have an M.S. or Ph.D. in toxicology or a related field, and 2-4 years of experience, gained preferably in the contract research industry or the pharmaceutical industry. Work-related experience, especially as a study director in a GLP setting, is valuable, and D.A.B.T. certification is a plus but not mandatory.

If selected, you will be eligible for all company benefits offered to all full-time employees which include health insurance coverage (medical, dental, prescription, vision), short term disability insurance, group life insurance, and a 401K savings plan.

Qualified applicants are encouraged to send a resume to: Human Resource Department, Sierra Biomedical, 587 Dunn Circle, Sparks, NV 89431, fax: 775-331-2289, or by e-mail to the Vice President of Non-Clinical Research at gchellman@sierrabiomedical.com.

SBI is an equal opportunity employer.

Reorganization at CSR

Continued from front cover

development. The report acknowledges the increasingly broad application of disciplines such as biochemistry, genetics, molecular and cell biology, to most fields of health-related research, but also recognizes that some cross-cutting research areas will need to be clustered together, rather than widely distributed among IRGs. There is flexibility to recognize and manage specific problems such as those that may concern the toxicology community.

We recognize that some fields, such as toxicology, are, by their nature, cross-cutting, involving essentially every organ system. We understand the toxicology community's concern that if applications in this field are spread too broadly, among too many study sections, some applications may find themselves in a review venue where there are not enough reviewers that understand or appreciate the toxicology perspective. The PSBR Phase 1 Report recommends clustering of such applications in appropriate study sections. This issue applies not only to toxicology, but other cross-cutting disciplines as well. Our plan is to work closely with the leaders of these disciplines, and involve them in the implementation of the PSBR Phase 1 Report. This is the best way to ensure that the concerns of the toxicology community, and those of other communities are appropriately addressed. *Continued on page 12*



Toxicology Internships are Fulfilling Summer Experiences

"Thank you for the incredible internship experience this summer. This program has given me more than a positive insight into graduate school, it has allowed me to share in the pleasure derived from the inter-



Kurt Bertram in the lab

sity with which toxicology is pursued as a career." **Angela Kurtz**, a student at the University of Arkansas, conveyed the value of the Society of Toxicology Summer Internship program. Eight institutions have notified SOT that fifteen students participated in toxicology research during summer 2000.

Kurt Bertram from Northeastern University studied genes related to human lead toxicity. He worked with Dr. Ping Li in the laboratory of Dr. Toby Rossman at New York University's Nelson Institute of Environmental

Medicine. "This internship has heightened my interests for a career in toxicology. I was excited to get a hands-on glimpse at current toxicological research....This internship helped me as a young scientist to take the first step towards a career in toxicology."

The Center for Toxicology at the University of Oklahoma hosted four undergraduates, including **Bernice George**. "My internship experience was a rather rewarding one," she said. She studied the toxicity of the chemotherapy drug cis-platin in *Caenorhabditis elegans*. "The learning was immense," she said.

Since 1992, Johns Hopkins School of Public Health has hosted 30 undergraduates. Some students continue a project a second summer. "Overall, we have been very pleased with the students who have



From left to right: Sally Martin, Bernice George, Dar Shah, and Thao Nguyen



From left to right: Aisha Barnes, Robert Bucelli, and Jade Carter

participated in the program," reports **James Yager**. "Many have continued on in careers in science. We feel that having this program provides increased exposure for our graduate program and benefits the students by providing them with the opportunity to experience working in an academic research laboratory."

Please consider providing an opportunity for a student in your laboratory. Submit your sponsorship information for the 2001 listing on the form inserted in this newsletter and available on the SOT Web site. Funding is available for internships through the Colgate-Palmolive/SOT Awards for Student Research Training in Alternative Methods.

INTERN

Jared Ashcroft
Aisha Barnes
Daniel Bauer
Kurt Bertram
Will Bick
Brandon Brackenbury
Dan Brum
Robert Bucelli
Jade Carter
Bernice George
Angela Kurtz
Sally Martin
Thao Nguyen
Prita Persaud
Dar Shah

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Dr. Steven Silbaugh
Dr. James Grace
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Dr. David Jett
Dr. Marie Hanigan
Dr. Philip Mayeaux
Dr. Nathan Shankar
Dr. Thomas Pento
Dr. James Mayne
Dr. Robert Hurst

UPCOMING CONFERENCES

Hydrogen Sulfide Health Effects and Risk Assessment Symposium, October 31–November 2, 2000, Sheraton Europa, Chapel Hill, NC. Co-sponsored by the American Petroleum Institute, the Chemical Industry Institute of Toxicology, and the U.S. EPA. E-mail: h2s@api.org; Web site: <http://www.api.org/h2s>.

Workshop on the Evaluation of Alternative Methods for Carcinogenicity Testing, November 1-3, 2000, Lansdowne Resort, Leesburg, VA. Contact: meetings@ilssi.org; Web site: ilso@ilsi.org.

American College of Toxicology 21st Annual Meeting, November 12-15, 2000, Catamaran Resort Hotel, San Diego, CA. Contact: ACT, 9650 Rockville Pike, Bethesda, MD 20814; Tel: (301) 571-1840; Fax: (301) 571-1852; E-mail: ekagan@actox.org.

Food Safety Objectives: Public Health, HACCP and Science, December 4-5, 2000, Georgetown University, Washington, DC. Contact: Phillipa Orme, FSO 2000 Conference Secretariat, 12 Church Street, West Hanney, Wantage, Oxon, OX12 0ln, UK; Tel: +44 (0) 1235 868811; Fax: +44 (0) 1235 868811; E-mail: p.orme@dial.pipex.com; Web site: <http://www.elsevier.com/locate/fso2000>.

Indoor Air Health: Trends and Advances in Risk Assessment and Management, January 29–31, 2001, Radisson Deauville Hotel, 6701 Collins Avenue, Miami Beach, FL 33141. Contact: Wendy Raeder, NSF International, 789 North Dixboro Road, Ann Arbor, MI 48105; Tel: (734) 827-6888; Fax: (734) 827-6840/6831; E-mail: raeder@nsf.org; Web site: <http://www.nsf.org/conference/air2>.

International Conference on Dietary Factors: Cancer Causes & Prevention, Vienna, Austria, February 14-17, 2001. Contact: Johanna B. Paukovits, Institute for Cancer Research, Borschkegasse 8a, A-1090, Vienna, Austria, Tel. (43)-1-42-77-65-246 or E-mail: walter.paukovits@univie.ac.at; Web site: <http://www.univie.ac.at/krebsforschung>.

Society of Toxicology 40th Annual Meeting, March 25-29, 2001, Moscone Convention Center, San Francisco, CA. Contact: SOT Headquarters, 1767 Business Center Drive, Suite 302, Reston, VA 20190-5332; Tel: (703) 438-3115; Fax: (703) 438-3113; E-mail: patricia@toxicology.org; Web site: <http://www.toxicology.org>.

British Toxicology Society Annual Congress, June 10-13, 2001, University of Keele, UK. Contact: Dr. TJB Gray, Meetings Secretary, Sanofi-Synthelabo, Willoburn Avenue, Alnwick, Northumberland, NE662JH, England; Tel: +44 (0) 1665 607370; Fax: +44 (0) 1665 607510.

International Neurotoxicology Association Eighth Annual Meeting, June 17-22, 2001, Hotel Estoril Eden, Estoril, Portugal. Web site: <http://www.neurotoxicology.org>.

2nd International Meeting on Male Mediated Developmental Toxicity, June 20-23, 2001, Montreal, Canada. Contact Barbara Hales, Tele: (514) 398-3610; E-mail: bhales@pharma.mcgill.ca.

41st Annual Meeting Teratology Society, June 23-28, 2001, Montreal Canada. Contact Tonia Masson, 1767 Business Center Drive, Suite 302, Reston, VA 20190, Tel: (703) 438-3104, E-mail: tmasson@teratology.org.

Society of Toxicologic Pathologists (STP) International Federation of Societies of Toxicologic Pathologists (IFSTP), June 24-28, 2001, Hyatt Orlando, Orlando, Florida. Contact Christine Rossiter, Meeting Manager, STP Meetings Department, Talley Management Group, 19 Mantua Road, Mt. Royal, New Jersey 08061, Tel: (856) 423-7222 ext 235, Fax: (856) 423-3420, E-mail: crossiter@talley.com.

9th International Congress of Toxicology, July 8-13, 2001, Brisbane Convention and Exhibition Centre, Queensland, Australia. Hosted by Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists. Contact Intermedia Convention and Event Management, P.O. Box 1280, Milton, QLD 4064, Australia; Tel: +61 (0) 7 3369 0477; Fax: +61 (0) 7 3369 1512; E-mail: ictix2001@im.com.au; Web site: <http://www.uq.edu.au/ICT9>.

MEDIA OF INTEREST

Current Protocols in Toxicology, Contact: John Wiley & Sons, Inc., Attn: P. Spillane-9th Floor, 605 Third Avenue, New York, NY 10158-0012; Tel: (800) 825-7550; E-mail: protocol@wiley.com.

The Quarterly Review of Biology, (ISSN: 0033-5770) edited by Albert D. Carlson and James D. Thomson, University of Chicago Press, Journals Division, P.O. Box 37005, Chicago, IL 60637; <http://www.journals.uchicago.edu/QRB>.

Elsevier Science's Encyclopedia of Neuroscience on CD-Rom Version 1.1. Details and ordering information for the updated version are available at <http://www.elsevier.com/locate/encneu>. Purchasers of the earlier version 1.0 can get version 1.1 at a special upgrade price.

Animals in Research Slides Available

"People & Animals: United for Health" is a package produced by the Massachusetts Society of Medical Research, Inc. It provides background information on the use of animals in biomedical research, education, and testing. Designed for middle and high schools, the materials can be effectively used for public presentations as well. SOT members should contact Lynne Hogan at Headquarters lynne@toxicology.org; (703) 438-3115, ext. 118, to schedule loans of these items.

Reorganization at CSR

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The Phase 1 Report was accepted by the Advisory Committee on January 10, 2000, and was posted on the Web (<http://www.csr.nih.gov/review/reorgact.htm>). The Panel is now working on the Phase 2 Report, which is the implementation of the Phase 1 concepts. Specifically, they will gather broad input to design the study sections within each of the 24 IRGs in the first report. As with the Phase 1 Report, they will solicit input from members of all the affected or interested communities. A draft plan has been put on CSR's Web site at: <http://www.csr.nih.gov/events/implementation.htm>.

The success of the implementation plan requires the involvement of the scientific research community. CSR is grateful for the community's willingness to participate, and to partner with CSR and the PSBR in this critical project. The success of this effort and indeed the continued success of NIH's peer review system depend on this partnership.