

# THE SOCIETY FOR IN VITRO BIOLOGY

# 2004

# Annual Report

## President's Report

**D**uring 2004, the SIVB changed Presidents after the conclusion of the Congress in San Francisco. This will be the last time that an incoming President doesn't take office at the meeting following elections. The membership, by more than a 90% yes vote, approved a set of revisions to the Bylaws and Constitution that will correct this obstacle to appropriate management, along with a number of additional revisions. These significant modifications are more than cosmetic because several approved clauses save substantial funds by reversing expenditure requirements, which are no longer suitable for the present size and management structure of the current SIVB.

The second item to highlight is the reversal of deficit spending that has been a frequent pattern for the SIVB. The present Board and Officers are absolutely committed to a balanced budget, even if some temporary belt tightening that cuts into services is the consequence. In this day and age, with the limited reserves now available, this group of officers and Board passed a balanced budget starting in July 2004 and will remain dedicated to a fiscally responsible position.

Third, the student initiative, started by the previous Long Range Planning Committee, produced a notably different character for our Annual meeting. At San Francisco, approximately 100 students took advantage of free student registration and a one-year trial membership in the SIVB. Society membership, by the end of 2004, had increased by about 10%, reversing a disturbing trend from previous years. The student influx gave vibrancy to our meeting and brought us closer to the SIVB's core mission. This initiative also inspired several corporate members to make an extraordinary contribution, which is being leveraged to obtain additional federal dollars for our efforts.

This Annual Report provides information on these three accomplishments during the tenure of your new officers and Board, but other business of the SIVB could be similarly lauded. In fact, although endeavors are related in this President's Report and other reports, achievements are the result of combined efforts of many individuals and committees composed of dedicated volunteers. Let's continue the effort to represent our science and to foster the environment, which can make our service vital to leadership of our profession. Thanks to everyone for your generous support.

David W. Altman, President  
president@sivb.org



*President David Altman addresses the Plant Biotechnology Section during their business meeting.*



*President David Altman and the World Congress Attendees listen to the Keynote Symposia*

## Secretary's Report

2004 was a transition year for the office of Secretary. Barbara Reed's double term (four years) ended after San Francisco's World Congress on In Vitro Biology. Her accomplishments as Secretary and Chair of the Membership Committee are notable. During this time, the extremely popular student program for free meeting registration (includes free membership the following year) was initiated and continues to be extremely popular. Over 50 students took advantage of this offer in 2003 and 83 in 2004!

Following in Barbara's footsteps, I have come to look at the role of Secretary as being a resource person for all members including the SIVB Officers, Section Officers and the Board of Directors. A goal I worked on long before I ran for Secretary was to have the minutes of the Board of Directors meetings be made available to all members, a goal I hope will be accomplished in the near future. (Little did I know I was proposing future work for myself!) Feel free to continue contacting me with your questions, comments and concerns. If I can't help you, I will find the appropriate person who can.

Nancy A. Reichert, Secretary  
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## Treasurer's Report

The society has once again struggled to maintain a strong fiscal outcome for 2004. We started 2004 with a net deficit of \$120,510 and we ended the year with a deficit net asset of \$196,900. While the numbers are still discouraging, there are positives that can be taken from these results. Through the efforts of the Board of Directors, the Finance Committee and the Development Committee, the deficit was not as large as what was forecast at the beginning of 2004. This was a result of the meeting being a financial success (no significant loss) and other cost saving measures that were implemented. It is critical that the Society recognizes the financial situation and takes all necessary steps to continue to move towards a positive net cash flow. The Board of Directors, under the direction of President David Altman, and the entire management staff are working diligently to assure that we have a balanced budget for 2005. We are continuing to find ways to cut our costs and the finance committee and the Board is working diligently to identify areas of cost savings as well as identify potential sources of revenue. The major issue continues to be our decline in membership and meeting attendance. As in the previous year, it will be critical to increase our revenues through our membership, publications, and annual meeting. As I stated in last year's report, in order to bring the Society back into a positive cash flow, it is imperative that we all continue to work together to find ways increase our revenue and contain our costs. This will obviously require some dedication from our membership. I would like to again commend the efforts of the section chairs and their membership as well as the development committee for their efforts in finding ways to resolve our current financial situation. David Songstad, Development Committee Chair, has initiated a capital campaign to build an endowment that hopefully will be instrumental in helping the Society survive and grow. The 2004 Annual Report includes a Treasurer's Summary Report consisting of a Statement of Financial Position and Statement of Activities for the year. The full report is available from the business office on request.

Richard Heller, Treasurer  
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## Business Office Report

The Business Office activities focused on the 2004 World Congress on In Vitro Biology, the 11<sup>th</sup> International Invertebrate Conference, publications, and membership. The 2004 World Congress on In Vitro Biology was held in San Francisco, CA from May 22 – 26, 2004 at the Hyatt Regency – San Francisco. The 2004 World Congress highlighted Dr. Kary B. Mullis, PhD, Burstein Technologies, 1993 Nobel Laureate for Chemistry for the Discovery of the Polymerase Chain Reaction. He spoke on The Challenge and Approach of Today's Disease/Pathogen Drug Treatments. Also, there were acknowledgements for the lifetime achievement awardes: Thomas Grace, PhD, Walter Nelson-Rees, PhD, and Trevor A. Thorpe, PhD during the keynote session. These emeritus scientists were being honored for their years of exemplary research, achievements, and pioneering contributions to the field of cell culture. The Lifetime Achievement Award presentation for Dr. Grace took place during the 11<sup>th</sup> International Invertebrate Conference on Saturday, May 22. The Lifetime Achievement Award presentations for Dr. Nelson-Rees and Dr. Thorpe took place at special luncheons on Tuesday, May 25.

In 2004, the first Vertebrate and Cellular Toxicology Fellow Awards were presented. The Cellular Toxicology Fellow Awards were presented to: Eugene Elmore, PhD; John Harbell, PhD; Richard Heller, PhD; Paul Price, PhD; Elizabeth J. Roemer; Colette J. Rudd, PhD; Lynn Rutsky, PhD; Sandra L. Schneider, DrPH; Leonard J. Schiff, PhD; William J. Smith, PhD; and Alda Vidrich, PhD. The Vertebrate Fellow Awards were presented to: Delia Bethell, PhD; Gertrude C. Buehring, PhD; Robert J. Hay, PhD; and Wallace L. McKeehan, PhD. Additionally, the Plant Biotechnology Section presented the Plant Fellow Award to Gregory C. Phillips, PhD and the Invertebrate Section presented Invertebrate Fellow Awards to Cynthia Goodman, PhD; Robert Granados, PhD; Lehman Ellis, PhD; and Raziell Hakim, PhD. The Society also honored J. Denry Sato, PhD; Shirley Pomponi, PhD; David Jayme, PhD; and Gordana Vunjak-Novakovic, PhD with the Senior Investigator Award.

Special pre-meeting workshops were held on "Using Cell-based Model Systems in Assays and Basic Research: A Workshop in Practical Methods" and "Funding Fundamentals: How To Get The Grant You Want." Special events held during the Congress were: a cruise on the San Francisco Bay on May 23, 2004, a Fun Run/Walk on May 25, 2004, and a silent auction which ended on Tuesday, May 25, 2004.

At the 2004 World Congress on In Vitro Biology, the attendance reached 535. There were 224 members, 20 non-members, 34 post docs, 5 emeritus, and 3 one-day registrants. Also, there were 96 student registrants, 17 volunteers, and 113 speakers. For the second year, SIVB offered all students free registration to the scientific sessions of the 2004 World Congress and free membership to the Society in 2005.

The 2005 In Vitro Biology Meeting focuses on issues pertinent to Plant and Animal research and will give participants a unique learning experience on plant and animal cell culture and biotechnology. The Hyatt Regency Baltimore will be the site of the 2005 In Vitro Biology Meeting. This downtown luxury hotel, centrally located on the Inner Harbor, is one of the city's foremost hotels.

An open skywalk connects it to the Baltimore Convention Center and the multiple shops and restaurants at Harborplace. Major attractions are within walking distance, including the National Aquarium in Baltimore, Maryland Science Center, Port Discovery, Oriole Park at Camden Yards and M&T Ravens. Our hotel offers incredible views, luxurious comfort and superb service at an unmatched location. With every amenity you could ask for, Hyatt Regency Baltimore is the pinnacle of Inner Harbor hotels.

The 2005 In Vitro Biology Meeting will highlight Dr. Robert S. Langer, ScD, Professor of Chemical and Biomedical Engineering at the Massachusetts Institute of Technology and winner of the 2002 Charles Stark Draper Prize. He will be presenting, "Advances in Tissue Engineering." Also, there will be presentations of the Lifetime Achievement Awards during the meeting to Dr. Oluf Gamborg, PhD and Dr. Rober S. Langer, ScD. David D. Songstad, PhD and David Ellis, PhD are to receive the SIVB Fellow Award. There are additional awards winners being finalized at this time.

Arrangements have been finalized for a tour of the USDA/BARC facility on Saturday, June 4, 2005. Additionally, the 2005 Charm City Silent Auction will begin during the Opening Reception on Sunday, June 5 and will end on Tuesday morning, June 7, 2005. Lastly, attendees will be invited to enjoy a special elegant evening on Tuesday, June 7, at the National Aquarium of Baltimore.

The Business Office's Publications Department continued to evolve during the year. The Business Office continued to partner with both CABI Publishing and Allen Press to publish the *In Vitro Cellular and Developmental Biology* journals and worked closely with the Publications Committee to assist in keeping the Committee abreast of the current state of the publications industry and future publishing opportunities.

In 2004, the *In Vitro Cellular and Developmental Biology – Plant* was involved the BioOne consortium for its first full year and looks to show a modest income for the year. Issues began showing up on the BioOne site in December 2003. To adjust to the current marketplace needs, *In Vitro – Plant* continued to push for an online manuscript system, which now looks to be implemented by the end of 2005. CABI continues to expand the Plant journal into international markets and increase its visibility throughout the world.

The *In Vitro – Animal* journal continues to grow in online visibility. To assist in the Animal journal's drive for more papers, SIVB instituted an ASAP site, which went active on April 8, 2003. To assist in its visibility, in 2004, the home page of the Animal journal was updated to provide a visible graphic that lists the most recent ASAP paper available. As part of the consortium with BioOne and its online journals, *In Vitro – Animal* has shown growth in additional online subscription income. *In Vitro – Animal* has continued to have articles listed in the top 25 most requested articles' list in BioOne. The Society also displays abstracts from its published Animal journals on the PubMed website the day after their appearance on the ASAP site or upon publication.

To further increase the visibility of the Animal journal, the Business Office continued advertising the recent updates in the publications. SIVB published a Call for Papers of the journal through BioSpace. The Business Office continued its heavy campaign to activate online access to all library subscribers who had eligibility for online access, but had not forwarded the appropriate information to activate the service. As a reminder, for eligible members wishing to

access the online version of the *In Vitro – Animal* journal, you will need your ID number and password. Your ID number is your membership number to the Society. Your password is your first name as recorded in the SIVB Membership database (including capitals). If you do not have this information and wish to receive it, please contact the business office at [sivb@sivb.org](mailto:sivb@sivb.org).

The first HTML version of the *In Vitro Report's* online publication was the October – December 2003 issue. Since then, all issues have been designed online and kept in archive for reference and the Business Office has sent broadcast emails to members upon the release of each issue.

The SIVB website continued to show activity with changes to the Board and Committees during the transition to the new elected Officers. A Future Meetings page was added to list other meetings that may be of interest to our members. Additionally, the SIVB bookstore was updated and revised with revised pricing and materials. The Business Office added the Constitution updates approved by the Membership and Bylaws updates made since that time.

In 2004, the 2004 World Congress on In Vitro Biology's Abstract Issue was held for publication until the actual meeting. This latest possible publication date was to allow participants the most possible time to submit abstracts and to present the most accurate program available. Abstract issues were handed out at the Congress to all participants, while those not attending received their issues in the mail. The final program was placed online and abstracts were uploaded as pdf's for member's review on the website a few weeks prior to the event.

Since the World Congress, there was a great deal of activity on both the web and in the publications for the Society's meetings. The registrants for the Technology Transfer display at the 2004 World Congress were added as a special linked page to both the Meetings and Education sections of the website. The 2004 World Congress final program and abstracts were moved on the meeting site, where they are still available. The 2005 Calls for Abstracts were moved from being published in the *In Vitro Report* to being part of the *In Vitro – Animal* and *Plant* journals with regular updates being completed on the website prior to the publication of the Calls and the exhibitor information was uploaded on the site for 2005.

In order to further cut expenditures, in 2004, the Board decided to have a management company run the day-to-day operations of the Society. On July 1, 2004, New Beginnings Management took over the running of the business office. New mailing addresses were sent out to all members through broadcast email and were listed on the SIVB website. Both myself and Michele Schultz, Publications Manager, comprise the major staff of New Beginnings Management.

The Business Office would like to thank all the members of the Society who have given of their time to support the Society for In Vitro Biology. A special thanks to the Board of Directors, Committee, and Section Chairs for their support to the vision of the Society. As always, thank you to the volunteers at the 2004 World Congress. We welcome your ideas and suggestions in promoting the Society for In Vitro Biology. Contact us at [sivb@sivb.org](mailto:sivb@sivb.org).

Marietta Wheaton Ellis, Managing Director  
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## Cellular Toxicology & Vertebrate Sections

The 2004 World Congress of the Society for In Vitro Biology in San Francisco, California had very active collaboration between Cellular Toxicology and the Vertebrate Section to bring about a timely and informative scientific meeting. An exciting array of Sessions-In Depth, Contributed Papers, and Interactive Poster Sessions were presented.

Joint State-of-the-Art Symposia and workshops included, "RNA Interference: A New Tool in Gene Discovery and Gene Therapy" moderated by Harold Trick, Guy Smaghe and Michael Fay, "Stem Cells: Fundamental Aspects and Therapeutic Approaches" convened by Gordana Vunjak-Novakovic, "Proteomics Symposium: Biomarkers" convened by Collette Rudd, and "Functional Proteomics Workshop: A Novel System for High-Throughput Protein Fractionation and Identification" convened by Cynthia Goodman. Cellular Toxicology and Vertebrate SID's included "Advances in Automation of Cell Culture and Cell-Based Assays" convened by Dennis Laska and Linda Jacobsen, "Tissue Engineering" convened by Gordana Vunjak-Novakovic, "Cell Culture Systems for Production of Pharmaceuticals" moderated by Paul Price and David Jayme, "Advanced Technologies for Monoclonal Antibody Production" convened by Shinji Iijima, "Stem Cells in Aquatic Organisms" convened by David Barnes, "Mammalian Cell Culture Contaminants: Identification and Control" convened by John Masters, and "Biopreservation," convened by John M. Baust. A workshop entitled, "RNA Interference" was convened by Janis Demetrius and Michael Fay, a Contributed Paper Session on Cancer Biology moderated by Kim O'Connor. As always, the Interactive Poster Sessions drew a lively attendance as well as fruitful discussions among attendees. These sessions covered a variety of topics including "Cell and Cell Culture Models for Toxicology Testing and Studies/In Vitro Tools" moderated by Penny Jones, "Cryopreservation/In Vitro Tools" moderated by Lia Campbell, "Cellular Model Characterization" moderated by Dianne Hammond, and "Cancer Biology" moderated by Gertrude Buehring. The Toxicology and Vertebrate sections thank the many sponsors and exhibitors who supported the Society's program and events or that made contributions to the Society's general fund.

The Cellular Toxicology and Vertebrate Sections presented a number of awards at the 2004 World Congress. The Lifetime Achievement Award was presented to Dr. Walter Nelson-Rees for his work on exposing the problem of cross-contamination of cell lines. The first Fellow Awards were presented for the Cellular Toxicology and

Vertebrate Sections to members who have made outstanding contributions in the area of Vertebrate science research, teaching, and/or administration. They were presented from the Cellular Toxicology Section to: Eugene Elmore, PhD; John Harbell, PhD; Richard Heller, PhD; Paul Price, PhD; Elizabeth J. Roemer, Colette J. Rudd, PhD; Lynn Rutsky, PhD; Sandra L. Schneider, DrPH; Leonard J. Schiff, PhD; William J. Smith, PhD; and Alda Vidrich, PhD, and from the Vertebrate Section to: Delia Bethell, PhD; Gertrude C. Buehring, PhD; Robert J. Hay, PhD; Wallace L. McKeethan, PhD; David W. Barnes, PhD; Elliot M. Levine, PhD; Craig Meyers, PhD; Yvonne A. Reid, PhD; Gretchen J. Darlington, PhD; and Warren I. Schaeffer, PhD. Two additional awards were given for work in the field of Toxicology. The Toxicology Section awarded the annual Cellular Toxicology Student Award to Stephanie DeWitt-Orr from the University of Waterloo for the interesting and very timely study entitled "Capacity of Fish Cell Lines to Undergo Apoptosis in Response to Two Toxicants: Gliotoxin and Copper." She was also awarded the Joseph F. Morgan Award, which provides travel funds for Canadian students to attend the Annual Meeting of the SIVB, and the Honor B. Fell Award. The Hope E. Hopps Award and Student Travel Awards were presented to Kristi Snyder from Binghamton University for her presentation entitled, "Hypothermic Storage of Neonatal Mammalian Cardiomyocytes: Assessment of Multiple Markers of Viability." The Toxicology and Vertebrate Sections appreciate the efforts of all who submitted their work for consideration. All are winners!

The annual business meeting was held jointly with the Cellular Toxicology and Vertebrate Section. The 2005 Meeting program dominated the discussion and by meeting's end a program outline emerged. The 2005 Meeting program will include more Plenary Symposia and workshops on such topics as stem cells, RNA interference, tissue engineering, biosensors, proteomics and transfection.

On behalf of the Cellular Toxicology and Vertebrate Program Committees, we thank you for your attendance of the 2004 World Congress and participation in its program and many activities. We appreciate your continued support of the mission and objectives of the Toxicology and Vertebrate Sections and of the SIVB. See you all again in 2005.

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(L to R) Alda Vidrich, Colette Rudd, Gertrude Buehring, and Sandra Schneider at the 2004 World Congress Awards Banquet



Exhibitors at the 2004 World Congress meet with the attendees.

## Invertebrate Section

**F**isherman's Wharf, the infamous Alcatraz, and the majestic Golden Gate bridge were the backdrop to the 11<sup>th</sup> International Conference on Invertebrate Cell and Tissue Culture held in Conjunction with the 2004 World Congress on In Vitro Biology May 22-26, 2004 in San Francisco, CA. The conference was chaired by Amy Wang (GlaxoSmithKline) and co-chaired by Guy Smagghe (Ghent University). The Invertebrate Program Committee consisted of Cynthia Goodman (USDA-ARS-BCIRL), Robert R. Granados (Boyce Thompson Institute for Plant Research), Raziel S. Hakim (Howard University), J. Denry Sato (Mount Desert Biological Laboratory), Dwight Lynn (USDA), Marcia Loeb (USDA), Jun Mitsuhashi (Tokyo University Agriculture), Karl Maramorosch (Rutgers University), and K. J. Magaratha Vally (Texas A&M University).

The Keynote Symposium and Opening Session "Molecular Engineering and Biology of Invertebrate Cell Cultures: A Tribute to Dr. Thomas Grace and Professor Shangyin Gao," was convened by Robert R. Granados, Karl Maramorosch, and Amy Wang on Saturday 22<sup>nd</sup> May 2004. It paid tribute to Dr. Thomas Grace and Prof. Shangyin Gao (Z-Y.Gaw) for their exceptional achievements in the field of invertebrate cell culture. Their efforts have resulted in scientific and commercial applications of insect cell culture. As in other discoveries this past century Prof. Shangyin Gao in Wuhan, China in 1958 and Tom Grace in Canberra, Australia in 1962 developed their insect media independently. These two scientists never met and they were unaware of each other's work; yet they shared outstanding talents as creative inventors. Their contributions have permitted development of the field of insect biotechnology and has influenced virtually all subsequent research dealing with insect cell culture. Without their contributions no achievement in modern molecular invertebrate cell culture would have been possible.

The Symposium was introduced by Amy Wang as she welcomed all to the session. Karl Maramorosch led into the introduction of Dr. Grace with his talk entitled "Seminal Research Contributions by T. Grace and S. Gao". He was followed by the "Presentation of Historical 1963 Film: Insect Tissue Culture by Dr. Grace" (CSIRO Entomologist (ret.), Canberra, Australia). Following contributors included: Zhihong Hu (Wuhan Institute of Virology) presentation "Invertebrate Cell Culture Applications in China," Robert R. Granados's presentation "Invertebrate Cell Culture Biology and Novel Cell Lines," Rollic Clem's (Kansas State University) presentation "Apoptosis Regulation in Cultured Insect Cells: Facing Death on a Hair Trigger," and Gary Blissard's presentation "Role of the Major Envelope Protein (GP64) of Baculoviruses in Viral Entry and Exit from Cultured Cells".

The first part of the symposium ended with a lovely luncheon ceremony convened by Amy Wang during which Karl Maramorosch introduced Dr. Thomas Grace as the 2004 Society for In Vitro Biology, Invertebrate Section, Lifetime Achievement Award Winner. The plaque of "Lifetime Achievement SIVB Award" was given to Dr. Grace by the SIVB president, Dr. Sandra Schneider.

The Invertebrate section also honored 5 invertebrate research experts, Raziel S. Hakim (Howard University), Cynthia Goodman (USDA-



*SIVB President Sandra Schneider offers the Lifetime Achievement Award to Dr. Thomas Grace.*

ARS-BCIRL), Robert R. Granados (Boyce Thompson Institute for Plant Research), and Ellis Lehman with the "Invertebrate Fellow Award" for their large contributions to the Society and their achievements in the Invertebrate field.

The symposium continued with the following presentations: "Transgenic Insect Cell Lines That Support Production of Humanized Glycoproteins by Baculovirus Expression Vectors" by Donald Jarvis (University of Wyoming), "Stable Transformation of Insect Cells with Densovirus Vectors and Expression of Foreign Proteins" by Max Bergoin, (University of Montpellier II), "Scale-up and Optimizing the *In Vitro* Growth of Insect Cells for Production of Recombinant Proteins and Viral Pesticides" by Spiros N. Agathos (Catholic University of Louvain), "Molecular Biology and Genomics of Shrimp Viruses and Their *In Vitro* Culture" by Just Vlak (Wageningen University), "Invertebrate Cell Cultures for Commercial Pharmaceutical Drug Discovery" by Steven H. Harwood (Invitrogen Life Technologies), "Baculovirus Technology for Mammalian Cell Gene Delivery" by Patrick Condreay (GlaxoSmithKline Discovery Research), and "Molecular Engineering and Biology of Invertebrate Cell Cultures: Summary and Conclusions" by Dwight E. Lynn (USDA-ARS-BARC).

On Sunday, May 23, in a joint session with Plant and Vertebrates, the Invertebrate Section hosted a State-of-the-Art Symposium on "RNA interference: A New Tool in Gene Discovery and Gene Therapy". This was convened by Harold N. Trick (Kansas State University), Guy Smagghe (Ghent University), and Michael J. Fay (Midwestern University). RNA interference, or RNAi, is an innate cellular process activated when a double-stranded RNA (dsRNA) molecule enters the cell, causing the degradation of not only the invading dsRNA molecule, but also single-stranded RNAs of identical sequences, including endogenous mRNAs. This phenomenon is apparently widespread in eukaryotes, ranging from trypanosome to human, from *Neurospora* to rice, and has sparked great interest from both fundamental and applied perspectives. Currently, RNAi is being evaluated for both functional genomic analyses and for its potential in highly specific gene-silencing therapeutics. We had three leading experts in this field with a lecture "RNA Interference in Invertebrates" by Jozef Vanden Broeck (University of Leuven), "Development of siRNA-based Therapeutics" by Barry Polisky (Sirna Therapeutics), and "Viral Suppression of RNA Silencing in Plants" by Vicki Bowman Vance (University of South Carolina).

A second Invertebrate Symposium entitled "Functional Genomics of Aquatic Toxicology" was convened by J. Denry Sato (Mount Desert Island



*Dr. Raziel Hakim received the SIVB Fellow Award from the Invertebrate Section. At present he is the Vice President of the Invertebrate section. He is flanked from left to right by Amy Wang (former Invertebrate Section President), Cynthia Goodman (Member-at-large of the Board of Directors), Guy Smagghe (current President Invertebrate Section), and Dr. Thomas Grace's (the Lifetime Achievement Award Winner, 2004).*



*Prof. J. Vanden Broeck (University of Leuven) during his plenary lecture "RNA Interference in Invertebrates" at the State-of-the-Art Symposium on "RNA interference: A New Tool in Gene Discovery and Gene Therapy".*

Biological Laboratory). Fish are a diverse group of vertebrates which in a wide variety of environments. These microclimates vary by oxygen tension, salinity, temperature, pressure, light intensity, and composition of natural and man made chemical toxicants. Comparative studies of fish and mammalian genomes have shown that they have similar genome organization and gene function. Thus, it is likely that functional genomic studies of fish should provide insight into normal and pathological human physiology. The talks in this session highlighted new tools and organisms for studying the impact of aquatic environmental toxicants on physiological processes. Presenters included: "Comparative Approaches to Understanding Mechanisms of Toxicity: The Comparative Toxicogenomics Database CTD" by Carolyn Mattingly (Mount Desert Island Biological Laboratory), "Fish & Chips Using DNA Arrays to Study Environmental Stress in Non-Model Organisms" by Andrew Gracey (Stanford University) and "The Effects of Arsenic on the Function of CFTR Cl Channels in Killifish, a Euryhaline Teleost" by Bruce A. Stanton (Dartmouth Medical School).

In addition an Invertebrate Contributed Paper Session moderated by Guy Smagghe (Ghent University) entitled "Insect Cell Culture" featured the following topics and presenters: "A New Method for the Rapid and Automated Generation of Baculovirus Expression Vectors"

by B. Hitchman (Oxford Brookes University), "Response of Midgut Stem Cells of the Caterpillar *Spodoptera littoralis* to Insect Peptide Factors,  $\alpha$ -Arylphorine and Hormones" by Guy Smagghe (Ghent University), "Use of Gal4-Mos1 *Cimeric mariner* Transposase for Germ-line Transformation in *Drosophila melanogaster* and *Aedes aegypti*" by K. J. Maragatha Vally, (Texas A&M University), "Changing the Fate of Stem Cells from the Midgut of the Insect, *Heliothis virescens*: Changing Calcium Ion Concentration" by Marcia J. Loeb (USDA) and "Screening Invertebrate Cell Lines for Gap Junction Channel Activity and Functional Innexin Genes" by S. J. Siddiqi (PharmaGap, Inc).

An Invertebrate Interactive Poster session moderated by Raziel S. Hakim (Howard University) was also held on Monday 24<sup>th</sup> May, and the following posters were presented: "Ex Vivo Utilization of Caterpillar Midgut to Study Kinetics and Toxicity of Insect Growth Regulators" by Guy Smagghe, (Ghent University), "Optimization of Feeding Strategies for Heterologous Protein Production in Cultures Using the Insect Cell- Baculovirus System" by Spiros N. Agathos (Catholic University of Louvain), "Does Apoptosis Play a Role in the Growth and Metamorphosis of the Lepidopteran Midgut?" by Raziel S. Hakim (Howard University), and "An Assay System for Determining the Toxicity of Flavonoids Against Insect Cells In Vitro" by J. Larry Gringorten (Canadian Forest Service)

On Monday, May 24, 2004 the Invertebrate Section of SIVB had its Annual Sectional Dinner Meeting at the Cosmopolitan Restaurant. It was chaired by Dr. Guy Smagghe, president of our section. The evening was set aside for informal discussions most of which focused on the 2005 Meeting in Baltimore. Present were Dr. Tom Grace, (GlaxoSmithKline), Cynthia Goodman (USDA-ARS-BCIRL), Guido F. Caputo (Canadian Forest Service, ON, Canada), Jean-Christophe Drugmand (Belgium), Spiros N. Agathos (Catholic University of Louvain), Raziel S. Hakim (Howard University), Marcia Loeb (ret. USDA), K. J. Magaratha Vally (Texas A&M University), S. J. Siddiqi (PharmaGap, Inc), and Amy Wang of GlaxoSmithKline.

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## Plant Biotechnology Section

2004 was a positive year for the Plant Biotechnology Section (PBS) in many respects. Our membership increased for the second year in a row, our scientific program was outstanding, we continued to feel that wonderful sense of camaraderie - a trademark of our section, plus we had fun. Being an election year, PBS officers leading into the World Congress were: Nancy Reichert (Chair), Suzanne Rogers (Vice Chair) and Lisa Lee (Secretary). Newly elected PBS officers who started their term at the end of the World Congress were: Nancy Reichert (Chair), Mark Jordan (Vice Chair) and Lisa Lee (Secretary). Thank you Suzanne for all your efforts on behalf of the PBS!

The World Congress on In Vitro Biology held in San Francisco was a scientific success and many thanks go to Wayne Parrott, World Congress Program Chair, for organizing and coordinating such an effort. The PBS was so committed to this program that we, along with Bayer CropScience, provided funds for the Keynote Symposium where Kary Mullis, Nobel Laureate, gave a phenomenal talk.

The PBS scientific program presented in San Francisco was outstanding. Mark Jordan (2004 Plant Program Chair), along with the entire PBS Program Planning Committee, prepared an exciting and thorough program on a broad range of scientific topics. In fact, Mark did such a phenomenal job that we asked him to serve as the 2006 Congress Program Chair for the SIVB meeting in Minneapolis. Allan Wenck (2005 Plant Biotechnology Program Chair) worked extremely hard to raise funds to support our 2004 program. He presented certificates of appreciation to companies who donated funds for the 2004 meeting during the PBS Business Meeting. Thank you to all involved!

2004 was the second year we (Section officers) extended invitations to all members to participate in the PBS Program Planning Breakfast, our Business Meeting and of course, our Social. Attendance at the Planning Breakfast was so great (~70), we had to get more chairs and, of course, food. We also tapped into our multi-talented, eclectic group of scientists to provide musical entertainment during the Social. Greg Phillips led the charge by renting guitars and amplification equipment, then proceeded to entertain us with beautiful guitar solos. Thank you Greg!

Another PBS member, Jerry Ranch, joined in as did an invited speaker, Wayne Curtis. We have promises from these talented individuals to provide an encore performance at the PBS Social in 2005. This all began because I contacted the right person (Dave Songstad) to make the initial contacts. An act that will affect the entire Society is worthy of note. In mid-2004, incoming President David Altman extended an open invitation to all Section Chairs to attend, and participate in, all scheduled Board meetings. This is significant and, in my opinion, long overdue since this inclusion should foster greater understanding between the different levels of infrastructure in our diverse Society. Thank you David!

Looking forward, the PBS scientific program to be presented at the 2005 In Vitro Biology Meeting in Baltimore promises to be another high point on our list of programs over the years. Allan Wenck along with Peggy Ozias-Akins and Baochun Li (Plant Biotechnology Program Sr. and Jr. Co-Chairs, respectively), and the entire Plant Biotechnology Program Committee have ensured we will have a full slate of exciting sessions in Baltimore. Thank you!



(L to R) Wayne Curtis, Jerry Ranch, and Greg Phillips entertain the Plant Biotechnology Section at their social. (photo courtesy of Barbara Reed)



SIVB Plant Biotechnology Section Members Gary Seckinger and Carol Stiff discuss plant cell culturing techniques.

In closing, I would like to acknowledge the great contributions made by Mark Jordan (PBS Vice Chair) and Lisa Lee (PBS Secretary). Their strong leadership has ensured we will have a bright future. Remember, section officer elections are right around the corner and it's never too late to become involved. I hope we can all look forward to a productive, scientifically-rich year ahead.

Nancy A. Reichert, Chair, Plant Biotechnology  
nreichert@pss.msstate.edu

## History and Records

The History Society was established in 1979 at the Seattle Washington Tissue Culture Association (TCA) meeting as the Records and Historical Committee. The charge of the committee is to preserve historical information concerning the growth, maintenance and *in vitro* experimental use of cells, tissues and organs. The History Society, in conjunction with the Records and Historical Committee oversees contributions to the SIVB archives located in the main library of the University of Maryland, Baltimore, MD. This archived material is available to all that would like to acquaint themselves with the history of tissue culture and scientific application to *in vitro* biology.

Members of the History Society and Records and Historical Committee include: Sandra L. Schneider (Chair), Gertrude Buehring (Co-Chair), June Bradlaw, R. Ian Freshney, Leonard Hayflick, Karl Maramorosch, Jon Ryan, Yvonne Reed, Leonard J. Schiff, and Just Vlak. The Committee sponsored a reception at the 2004 World Congress, San Francisco, California for Lifetime Achievement awardee and *in vitro* cell culture pioneers: Dr. Walter Nelson-Reese, Professor Shangyin Gao, Dr. Thomas Grace, and Dr. Trevor Thorpe. A World Congress movie night was held to view the BBC presentation *Strange Attractions: The Life and Times of Life and Times*. This film featured historical interviews with Leonard Hayflick, Walter Nelson-Reese, and numerous other scientists. The History Committee will meet in conjunction with the 2005 In Vitro Biology Meeting, Baltimore, Maryland.

Sandra L. Schneider, Chair  
drsandra@stic.ne

## Standing Committees

### Constitution and Bylaws

During Society elections held in 2003 the Chair was re-elected to a second term thru 2006.

A meeting of the committee was held in June during the 2004 World Congress in San Francisco to discuss changes to the Constitution and Bylaws of the Society. In attendance were Mary Ann Lila, Melissa Hinga and Marietta Wheaton Ellis plus the incoming President David Altman. Of primary emphasis was a change to the Constitution allowing the Board to make changes to the Bylaws without a vote of the Society's membership. This request was made by the Board and reviewed by the C&B Committee. A Constitutional Amendment was developed by the Committee and approved by the Board to be sent to the membership for a vote in August.

Upon approval of the Constitutional Amendment the Board requested the C&B Committee prepare a document listing the changes to the Bylaws as discussed at the C&B Committee meeting in June. An important change was recommended to allow the Board, upon recommendation of the Finance Committee, to seek an appropriate financial review of the Society's records rather than having a full audit. The existing Bylaws document was updated to remove references to mailing out ballots and correcting inconsistencies between the Constitution and Bylaws regarding committee leadership. Other changes were to move from the end to the start of the Annual Meeting (or the meeting of the Board occurring in June) the commencement of the duties of office for newly elected Officers, Chairs and appointed Chairs. The recommended changes were approved by the Board for a vote and the Board passed all changes in October. The updated Bylaws can be found on the Society's web site under "Membership".

The C&B Committee was called upon again in December to review a recommendation by Member-at-Large Dennis A. Laska, which would standardize the site selection process for the Society's Scientific Meeting. The Committee was asked to determine if the process should be incorporated into the Bylaws of the Society. Action by the committee was tabled until 2005. In February, the Committee reviewed the process, requested clarification and suggested wording to incorporate the process into the Bylaws. This recommendation was given to the Board for review and approval and the Board voted to pass the changes thus incorporating a site selection process in the Bylaws.

The Chair is deeply grateful to the members of the C&B committee, the SIVB Business Office, Marietta Wheaton Ellis, President Altman and the Board of Directors for all of their time, contributions and positive feedback throughout the year.

Members of the Committee are: Past-Presi-

dents Delia R. Bethel, Mary Ann Lila, and Plant Section member Carol M. Stiff. Marietta Wheaton Ellis serves as the liaison to the committee.

Melissa E. Hinga, Chair  
mhinga@ricetec.com

### Development

2004-2005 Development Committee consists of the following members: Janis Demetruilas, Barbara Doonan, Raziel Hakim, John Harbell, David Jayme, Mark Jordan, Hank Lane, Lisa Lee, Peggy Ozias-Akins, Nancy Reichert, Elizabeth Roemer, Sandra Schneider, Ray Shillito, Guy Smagghe, William Smith, Alda Vidrich, Gordana Vunjak-Novakovic, Amy Wang, Allan Wenck and David Songstad (Chair). Fundraising for the 2004 meeting was successful in that \$98,320 was raised to support the general meeting or specific sections within the SIVB. The companies that contributed to the 2004 World Congress are: Anachem, ArborGen, BASF Plant Science L.L.C., BayerCropScience, BD BioSciences, BioSource, Brandel BioMedicals, CAB International, Caisson Laboratories, CellFor Inc., ECACC, Finnigan Thermo Electron, Genzyme Corporation, GlaxoSmithKline, Guava Technologies, Invitrogen, JCRB Cell Bank, Johnson & Johnson, JRH Biosciences, Kimberly-Clark, Mike Horn, Monsanto, Oriental Yeast Co., Pioneer Hi-Bred Intl, RiceTec, Inc., SIVB Plant Section, Syngenta, Taiyo-Toyo Sanso, Technikos, Temple-Inland Forest Products Corp., The Scotts Company, UST, Inc., Weyerhaeuser, and Williamsburg Bioprocessing Foundation.

Fundraising for the 2005 annual meeting was bolstered by a \$20,000 contribution from UST. This contribution was in two parts with the first \$5,000 dedicated to the Plant Activity Fund and the second part comprising \$15,000 which is earmarked for helping with the increased expenses associated with the free student registration effort. Additional efforts for fundraising include application for USDA and NSF grants.

Fundraising efforts also consisted of working with the Non-profit Fundraising Assistance Group. A query that was based on a key word search produced a list of 25 foundations that have "education, science, biotechnology, conference, research, etc.". These foundations are being approached by members of the Development Committee and a "Letter of Intent" is being drafted by the Non-Profit Assistance Group. At the 2005 annual meeting, the Development Committee will meet to discuss future plans and strategy.

David D. Songstad, Chair  
david.d.songstad@monsanto.com

### Awards

The Society for In Vitro Biology honored three Lifetime Achievement Awardees at the 2004 World Congress on In Vitro Biology: Thomas Grace, PhD; Walter Nelson-Reese, PhD; and Trevor A. Thorpe, PhD during the Congress. These emeritus scientists were being honored for their years of exemplary research, achievements, and pioneering contributions to the field of cell culture.

There were number of Fellow Awards from each section presented at the Congress. This award recognizes members who have made outstanding contributions in their area of science research, teaching, and/or administration. The Fellow status is presented to SIVB members who have been active for at least 10 years and who have made outstanding contributions to the Society. This was the first year that the Fellow Award was presented in the Cellular Toxicology and the Vertebrate Sections. The Cellular Toxicology Section presented Fellow Awards to: Eugene Elmore, PhD; John Harbell, PhD; Richard Heller, PhD; Paul Price, PhD; Elizabeth J. Roemer, Colette J. Rudd, PhD; Lynn Rutsky, PhD; Sandra L. Schneider, DrPH, Leonard J. Schiff, PhD; William J. Smith, PhD; and Alda Vidrich, PhD. The Invertebrate Section presented Fellow Awards to: Cynthia Goodman, PhD; Robert Granados, PhD; Lehman Ellis, PhD; and Raziel Hakim, PhD. The Plant Biotechnology Section presented a Fellow award to Gregory C. Phillips, PhD. The Vertebrate Section presented Fellow Awards to: Delia Bethel, PhD; Gertrude C. Buehring, PhD; Robert J. Hay, PhD; and Wallace L. McKeenan, PhD.



Greg Phillips, winner  
of the Fellow Award  
for the Plant  
Biotechnology  
Section

The Society honored J. Denry Sato, PhD; Shirley Pomponi, PhD; David Jayme, PhD; and Gordana Vunjak-Novakovic, PhD with the Senior Investigator Award during the World Congress. This award recognizes non-student scientists with outstanding records of *in vitro* research at the level of established investigator.

## Education

Professional development programs at the 2004 SIVB World Congress in San Francisco included a free half-day workshop on grant writing for 50 participants convened by Carol Stiff, and a full day for-fee workshop convened by Jeffrey Janus. On Saturday, Jeffrey's workshop: *Using Cell-based Model Systems in Assays and Basic Research: A Workshop in Practical Methods* focused on human cells, and provided a valuable opportunity to learn directly from experienced experts in the use of cell-based models. Several types of model systems were featured including: fully differentiated cells, stem cells, and transformed cell lines. On Saturday afternoon Carol Stiff ran a free workshop: *Funding Fundamentals: How to Get the Grant You Want*. The panel of experts included both agency representatives and seasoned grant writers who gave short presentations and then opened the floor for discussion.

The outreach programs began prior to the Opening Reception on Saturday evening with a special poster session, featuring the work of high school students. An interactive poster session: *Educating the Biotechnology Workforce: Current Programs and Future Directions* was held during the Opening Reception. This session's multiple presentations included: *Educating the Biotechnology Workforce at Community and Technical Colleges*, Elaine Johnson, BIO-LINK, City College of San Francisco; *Professional Education and Career Options for Today's Biological Scientists*, Lindy A. Brigham, University of Arizona; *Internships: A Central Role in the Master of Biotechnology Program, a Professional Science Master's*, David Bieber, San Jose State University; *Biotechnology Management – A New Professional Masters Degree Program*, Steven A. McCommas, Southern Illinois University Edwardsville; and *Comm-*



**2004 Student Award Winners: (L to R) Magnolia Ariza-Nieto, Elif Aylin Ozudogru, Sanjeev Kumar Sharma, Stephanie DeWitt-Orr, Kristi Snyder, and Maria Federico.**



**Vertebrate and Cellular Toxicology Fellow Award Winners (L to R): Robert Hay, Gertrude Buehring, Glynn Stacey, Lynne Rutsky, Alda Vidrich, Colette Rudd, Paul Price, Eugene Elmore, Sandra Schneider, and Tohru Masui.**



**Trevor Thorpe addresses the attendees at the presentation of the lifetime achievement awardees during the Opening Ceremony.**



**Lifetime Achievement Awardees, Trevor Thorpe, Thomas Grace, and Walter Nelson-Rees with Past President Sandra Schneider.**

The Student Affairs Committee this year consisted of Pamela Weathers (Chair), Craig Meyers, Suzanne Rogers, and Elizabeth Roemer. The following awards were presented at the banquet of the 2004 meeting: Stephanie DeWitt-Orr received the Cell Toxicology, Honor B. Fell, and Joseph F. Morgan Awards for "Capacity of Fish Cell Lines to Undergo Apoptosis in Response to Two Toxicants: Gliotoxin and Copper." Magnolia Ariza-Nieto was granted the Wilton R. Earle Award and an SIVB Travel award for "Transgene Expression in Site-specific Integrant Rice Lines". Maria Federico was granted the John S. Song Award for "A Barley LTP Promoter for Tissue-specific Expression of Transgene-mediated Disease Resistance". The Hope E. Hopps Award and an SIVB Travel Award went to Kristi Snyder for "Hypothermic Storage of Neonatal Mammalian Cardiomyocytes: Assessment of Multiple Markers of Viability". Other SIVB Student Travel Awards were presented to Elif Aylin Ozudogru - Gebze for "Effect of Silver Nitrate on Organogenesis of Peanut (*Arachis hypogaea* L.)", and to Sanjeev Kumar Sharma for work on "The Development of an Efficient Somatic Embryogenesis System in Potato".

The Philip R. White Award went to Dorothy M. Gillespie of Nashua High School, Nashua, NH to introduce plant tissue culture into her 2004-5 Advanced Placement Biology course. The funds will be used to attend a workshop entitled "2004 NH Biotechnology Institute" at the Seacoast School of Technology, in New Hampshire in June and will purchase supplies for her classroom with the help of donated supplies from Caisson Laboratories, Inc., Plant Cell Technology, Inc., and Kitchen Culture Kits, Inc. The Philip R. White Committee members for 2004 were Drs. Carol Stiff (Chair), Satyahari Dey, Michael Kane, John Lunghusen, and Raymond Shillito.

At the 2004 annual student breakfast, there was a request for the SIVB Board of Directors to consider several student concerns: a possible SIVB student section, roommate matching for the annual meeting to decrease housing costs, and rapid abstract acceptance and award notification to facilitate obtaining additional monies for travel to the annual meeting. Both of the latter suggestions were successfully implemented for the 2005 meeting. Students attending the 2005 meeting will be queried regarding a possible student section of SIVB.

Amy A. Wang, Chair, Awards Committee  
amy.a.wang@gsk.com

Pamela J. Weathers, Chair, Student Affairs Committee  
weathers@wpi.edu

Carol Stiff, Chair, Phillip White Award Committee  
kck@turbonet.com

nity Colleges Biotechnology Manufacturing Training Programs: A Proposal, Patrick McKay, Genentech, Inc. In addition to these organized presentations a number of students and teachers took advantage of our special registration offers to attend the meeting.

Carol Stiff is the Education Committee Liaison to SIVB's *In Vitro Report*. She collects and coordinates materials for the newsletter, and puts together the education committee column. Anyone who has items they would like to have included (workshops, announcements, etc) should send them to Carol at kck@turbonet.com. Ask to be put on her e-mail list, and you will receive timely reminders when the columns are being prepared.

In addition, Carol has launched and is moderating a listserve to provide a venue for teacher-teacher and teacher-scientist interactions. Interested members of the SIVB are encouraged to sign up. Please contact Carol at the above email if you are interested.

The Education Committee is always looking for members who are interested in participating. Anyone interested in working on education is welcome to join us. Our areas of focus, range from K-12 to college level education and professional development. We are always open to new ideas, and generally have more great ideas than we have manpower. If you are interested in working with us, or have ideas for future programs please contact Liz Roemer at eroemer@notes.cc.sunysb.edu or call (631) 444-7347.

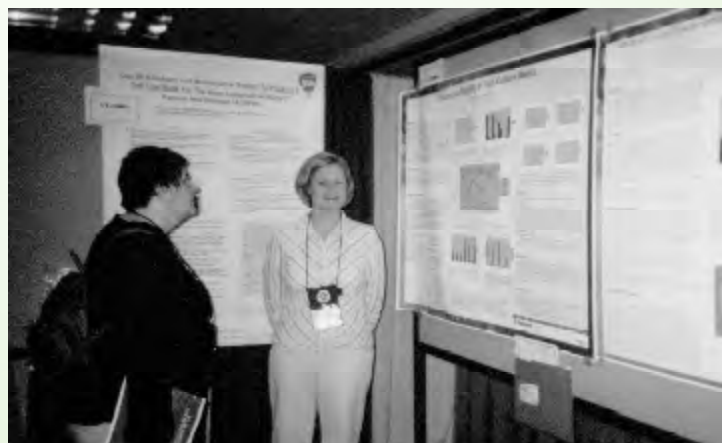
Elizabeth Roemer, Chair  
eroemer@notes.cc.sunysb.edu



*The Opening Reception was a wonderful way to reconnect with old acquaintances or meet new colleagues.*



*Invertebrate section presentations were part of the 11th International Invertebrate Conference.*



*Students are offered free registration to encourage their participation at the SIVB Congresses.*



*A special Education Interactive Poster Session was held during the opening reception.*



*A special Technology Transfer table was organized for the World Congress Exhibits.*



*Attendance was high in the sessions focusing on State-of-the-Art Technologies.*

## Program

The 2004 World Congress on In Vitro Biology was held at the Hyatt Regency San Francisco, San Francisco, California from May 22 – 26, 2004. The World Congress focused on a wide range of topics and issues of interest to all sections (Cellular Toxicology, Invertebrate, Plant, and Vertebrate) of the Society. This year's event was co-sponsored by the Canadian Chapter of the IAPTC&B, the European Tissue Culture Society, the Japanese Association for Animal Cell Technology, the Japanese Society of Plant Cell and Molecular Biology, the Japanese Tissue Culture Association, and the Swiss Tissue Culture Association. A total of 574 scientists from 22 countries attended the scientific meeting and interacted with exhibitor representatives. This was the second year SIVB offered free registration to students and 96 took advantage of this opportunity, double the number in 2003.

2004 was also the year for the 11<sup>th</sup> International Invertebrate Conference. This conference was held on May 22, 2004 with a full day of session, featuring a keynote symposium to open the event. The Conference focused on honoring pioneers in the field of invertebrate cell culture who have contributed outstanding achievements toward invertebrate continuous cell culture and media development. This year they honored Dr. Thomas Grace and Prof Shangyin Gao who aided the rapid development and important applications to insect cell culture during the past four decades. This event was well received by those who attended.

This year two pre-congress educational sessions were offered on Saturday. The official start of the meeting was signaled by the Student Poster Session coordinated by the Education Committee. Posters by students from high schools and community colleges, as well as educators, led to discussions with scientists attending the Congress. The Opening Reception was held in the Exhibit Hall and was a positive forum for participants to meet with the exhibitors and posters session presenters.

The World Congress sessions started early Sunday morning, with excellent attendance. Sunday morning we were pleased to welcome our Keynote Speaker, Dr. Kary B. Mullis of Altermune, speaking on the challenge and approach of today's disease pathogen drug treatments. Following this talk, which received wonderful feedback, we enjoyed a reception in Dr. Mullis' honor.



*Keynote Speaker,  
Kary B. Mullis*

The Congress Program consisted of 1 Keynote Symposium, 4 State-of-the-Art Symposia, 18 Mini-symposia, 2 State-of-the-Art Workshops, 2 Mini-workshops, 6 Contributed Paper sessions, and 7 Interactive Poster sessions. In all, 350 abstracts were received, of which 156 were presented as posters and 13 were silent abstracts. The range of scientific research presented at the Congress was exceptional. The State-of-the-Art sessions were designed to bring all the sections of SIVB together for information that was applicable to all in vitro researchers. Various sessions focused on a number of cross-discipline issues such as: cross contamination, transformation of various types, stem cells, microscopy, RNAi, biomarkers and proteomics, and biotechnology. Issues discussed included: biopreservation, organized development in vitro, root biology, gene integration in to plant genomes, tissue engineering, monoclonal antibody production, and more.

The SIVB Meetings have also been well known for their social events, and this year was no different. Attendees cruised the San Francisco Bay for an evening dinner cruise, watching visions of the Bay Bridge and Alcatraz over a lovely sit-down dinner. Our health conscious attendees woke up early on Tuesday, May 25, to enjoy some quiet time traveling along the waterside for our Fun Run/Walk, and many danced the night away during the Streets of San Francisco Closing Banquet.

The SIVB is deeply indebted to a large list of individuals who put this program together and carried it out flawlessly. These individuals include: conveners, fund-raisers and corporate sponsors, Congress co-sponsors, solicitors, presenters, moderators, exhibitors and schedulers. The Congress program planning began with Committee Chairs from each of the Sections, but was brought to fruition by many other hardworking, diligent members of SIVB. We also thank the office staff of SIVB that pulled together the Congress and programs, meeting facilities, banquet and tours into a positive experience for all that attended. My thanks to all for making this meeting a great success.

If you need more specifics or want to comment on any aspect of the Congress please contact me at [wparrot@uga.edu](mailto:wparrot@uga.edu). I look forward to seeing you all in Baltimore for the 2005 In Vitro Biology Meeting.

Wayne Parrot, Chair  
[wparrot@uga.edu](mailto:wparrot@uga.edu)



*Poster sessions are popular with all attendees.*



*Exhibitors interact with participants to present the latest materials and equipment in the field.*



*The 2004 World Congress Volunteers*



*Kary B. Mullis speaks with the Congress participants during the Keynote Reception.*



## Membership

The 2002-2004 Membership Committee [Erica Benson, Eugene Elmore, Raziel Hakim, Richard Heller, Michael Horn, Howard Hosick, Paul Price, Barbara Reed (Chair), Warren Schaeffer, Jayasankar Subramanian] spearheaded the extremely popular student incentive program (free meeting registration and membership the following year). The committee also worked on revising the SIVB membership brochure. The current (2004-2006) Membership Committee [Michael Fay, Raziel Hakim, Michael Horn, Linda Jacobsen, Rengong Meng, Sally Miramon, Nancy Reichert (Chair), Guy Smagghe, Harold Trick, Margaret Young] worked on membership renewals and on the membership brochure.

The SIVB is extremely lucky to have a great number of loyal members. We strive to continue to fulfill the needs of these long-time members and our newest members. Our committee would like to thank everyone for their continued membership renewals and we would like to especially acknowledge our "rocks" - those who have been members for at least one decade. They are listed below this report.

Nancy A. Reichert, Chair  
nreichert@pss.msstate.edu

### 55 Years

M. Helena Benitez  
Morgan Harris  
Etienne Lasfargues  
Man Niu  
Emer Randall  
John Shannon

### 50 Years

Ernest Chu  
Betty Danes  
Sergey Fedoroff  
Leonard Hayflick  
Robert Hull  
Seymour Levine  
Abel Robertson, Jr.  
Eugene Rosanoff  
Noel Rose  
Frederick Schaffer  
Benjamin Siegel  
Robert Stevenson  
Agnes Stroud-Lee

### 45 Years

F. Bozeman  
Cecil Castor  
William Chandler  
Lewis Coriell  
Thelma Dunnebacke-Dixon  
Elizabeth Earley  
James German, III  
Philip Loh  
Paul Moorhead  
Carlton Nadolney  
Mary Orr  
Carl Partanen  
Robert Roosa  
Irwin Schafer  
Ronald Sinclair  
Hartmann Staehelin  
Jean Stanley  
William Wood

### 40 Years

Frances Arrighi  
Nelly Auersperg  
June Biedler  
Bruce Casto  
Vincent Cristofalo  
James Duff  
Ronald Fletcher  
Arthur Greene  
Hajime Hayashi  
Ingeborg Hiltwig-Bente  
Albert Leibovitz  
Theodore Malinin  
George Martin  
Tohru Okigaki  
Eugene Perrin  
Olive Pettengill  
Evelyn Rivera

Warren Schaeffer  
Anna Steinberger  
George Wilbanks

### 35 Years

Ellen Borenfreund  
June Bradlaw  
Victor Brum  
Daniel Dahling  
Frank Dye  
Rocco Filazzola  
Helene Guttman  
Marion Harnois  
Robert Hay  
M. Edward Kaighn  
Marvin Karasek  
Frederick Kasten  
Howard Larsh  
John Lehman  
Stewart McConnell  
Leroy McLaren  
Jun Mitsuhashi  
Thomas Moehring  
Toshio Murashige  
Anna Ruckert  
Lynne Rutzky  
Jon Ryan  
William Thomas  
Trevor Thorpe  
Paul Todd  
James Vaughn  
Jack Widholm  
Conrad Yunker

### 30 Years

Daniel Acosta  
Monique Adolphe  
Vincent Aloyo  
Ubaldo Armato  
Arthur Balin  
Michael Barile  
Samuel Caplin  
Norman Cooper  
Gretchen Darlington  
Pierre Debergh  
Arlene Deitch  
Cyril Finnegan  
J. Fraser  
Ivette Garcia-Castro  
Glen Germain  
Ralph Germinario  
Beppino Giovanella  
Gabriel Godman  
Sidney Green  
Phillip Grefrath  
Bernd Hamprecht  
Steven Hausman  
James Henderson  
Mary Herman  
Howard Hosick  
Rachel Huot  
James Johnson

Gerhard Kalmus  
Jane Kaltenbach  
Paul Kornblith  
Shirley Kovacs  
Charles Kuszynski  
Robert Lawrence, Jr.  
Charles Lovig  
Dwight Lynn  
Karl Maramorosch  
Arthur McIntosh  
Wallace McKeehan  
Alexander Milne  
Machteld Mok  
Mary Pat Moyer  
Santo Nicosia  
Shirley Quan  
Hedi Roesler  
George Schuster  
Shirley Schwartz  
Gabriel Seman  
David Sirbasku  
John Smagula  
William Tolbert  
Joseph Tumilowicz

### 25 Years

Mina Bissell  
George Boder  
Nancy Bucher  
Gertrude Buehring  
James Caponetti  
JeanPierre Cazenave  
Martin Clynes  
Richard Colby  
Bob Conger  
Rudolf Czibik  
Ginny Darr  
Makito Emura  
Joseph Feder  
A. Dennis Genovesi  
Michael Gimbronejr  
Richard Giles  
Joel Greenberger  
Carol Haussler  
Carol Heckman  
Colleen Hera  
Etienne Hollande  
Karen Hughes  
Linda Jacobsen  
David Karnosky  
Pin King  
David Kirk  
Elliot Levine  
Shyamal Majumdar  
Philip Marcus  
Thomas Mawhinney  
P. Montgomery  
Masayoshi Namba  
Babette Radner  
Kenneth Ramos  
Paul Read  
M. Keith Redenbaugh  
William Richardson

L. De Ridder  
Luis Roig  
Regina Ruben  
Colette Rudd  
Jose Russo  
Joan Shapiro  
Alphonse  
William Scher  
Alphonse Sirica  
Wade Smith  
Vernon Steele  
Edward Siegel  
Frank Talamantes  
Mary Taub  
Nitin Telang  
William Tente  
Louis Terracio  
James Trosko  
Richard Trowbridge  
Ibrahim Tuet  
Joseph Tully  
Francis-De Uchima  
Stephen Wessman  
Cheng Yu

### 20 Years

Glenn Allison  
David Altman  
Eddie Bautista  
Delia Bethell  
Samuel Blumenthal  
Niels Bols  
John Bowen  
Steven Boyce  
Charles Buck  
Walter Butterfield  
Guido Caputo  
Jan Cervený  
Audrey Charles  
Ming Chou  
Marion Cohen  
George Dubes  
Ursula Ehmann  
Ann Fallon  
Philip Familletti  
John Finer  
Walter Finkbeiner  
Ian Freshney  
Hiroshi Fukamachi  
Roland Grafstrom  
Mary Oster Granite  
Dennis Gray  
Lee Handley  
Lun He  
April Herring  
Helene Hill  
Robert Hoffman  
Hiroyoshi Hoshi  
Li-Chun Huang  
Donald Ingber  
Dhanesh Jain  
Dennis Laska  
Thomas Linkhart

Toshiharu Matsumura  
Charles Maynard  
Shirley McCormack  
Brent McCown  
Richard Meister  
Sharon Mella  
Charles Michler  
Minoru Morikawa  
Teruo Nishida  
Linda B. Jacobsen  
Edward Noga  
Ralph Obendorf  
Harvey Ozer  
Valerie Pence  
Gregory Phillips  
Theodore Puck  
James Radosevich  
Jerome Ranch  
Augustin Rey  
Manuel Robert  
Denry Sato  
Sandra Schneider  
Hiroyasu Shirakawa  
Sledge Lab  
Fumio Suzuki  
Michael Tanabe  
Dwight Tomes  
Yasuhiro Tomooka  
Laura Tres  
Indra Vasil  
Dannette Ward  
Valerie Williamson-Weed

## 15 Years

Randa Abu-Hakima  
Jameel Al-Khayri  
Shin-Ichi Amino  
Hiroshi Ashihara  
Robert Auerbach  
Francois Auge  
John Avery, Jr.  
David Baltimore  
Erica Benson  
Raj Bhatt  
Elliott Birnbaum  
Carl Blackman  
Marc De Block  
W. Bullock  
Yin-Fu Chang  
Tau-San Chou  
Stanley Cohen  
John David  
Glenn Deaver  
Rodney DeLeon  
Janis Demetrius  
George Dougherty  
Avraham Duvdevani  
Eugene Elmore  
Glynn Faircloth  
Frank Falkenberg  
Clarence Falstad, III  
Manuel Fernandes-Ferreira  
Ebrahim Firoozabady  
Thomas Flynn  
Richard Fulker  
Victor Gaba  
Mark Galatowitsch  
Leonard Ginsberg  
Cynthia Goodman  
Thomas Goodwin  
Stephen Gorfien  
John Griffis, Jr.  
Vicki Gustafson  
Freddie Hammerschlag  
James Haug  
Richard Heller  
William Hillegas  
Maud Hinchee  
Patricia Holst  
Peter Hornsby  
William Howe  
Bharati Hukku

Harriet Isom  
Laurie Jaeger  
Nora Jamgotchian  
Penny Jones  
Todd Jones  
Kathryn Kamo  
Mikio Kan  
Michael Kane  
David Kaufman  
Julie Kikkert  
Sherry Kitto  
Jan Kovar  
William Kraus  
Peter Krogstrup  
Adelheid Kuehnle  
Timothy Kurtti  
Sylvie Laliberte  
David Langleben  
Rita Levi-Montalcini  
Jeanne Layton  
Mary Ann Lila  
Richard Litz  
Marcia Loeb  
Christina Lundqvist  
Paul Lynch  
Wayne Mackay  
Steven Matsumoto  
Kyojiro Masuda  
Robert McCauley  
Linda McHolland  
Scott Merkle  
Paul Miller  
Sally Miramon  
Hiroshi Mizusawa  
Matsuda Motoko  
Luis Mroginiski  
Chifumi Nagai  
Shizutoshi Nakagawa  
Robert Nardone  
Narender Nehra  
Ronald Newton  
Roberto Nicosia  
Randall Niedz  
Tetsuji Okamoto  
Kevin Osteen  
Peggy Ozias-Akins  
Maria Pais  
Mark Pieper  
Paula Pijut  
Przemyslaw Popowicz  
Zamir Punja  
Robert Redman  
Barbara Reed  
Janet Reed  
Yvonne Reid  
Michael Renfroe  
Terry Riss  
Veronica Roberts  
Carole Saravitz  
Juan Segura  
John Semon, Jr.  
Raymond Shillito  
Kenneth Sink  
William Smith  
Benjamin Steinitz  
Carol Stiff  
Steven Strickland  
Teodora Tabancay  
David Tan  
Anthony Trieu  
UST, Inc.  
Alda Vidrich  
Marguerite Vogt  
Michael Walker  
Andrew Wang  
David Waters  
Pamela Weathers  
Kent Welsh  
Mary Welter  
Glenn Wilson  
Noritsugu Yabe  
Koji Yamada  
Guangning Ye

Shin-Ichi Yamada  
Thomas Zimmerman  
Jean-Pierre Zryd

## 10 Years

Burton Altura  
Joji Ando  
Maigull Appelgren  
Charles Armstrong  
Charles Arntzen  
Masahiko Awaji  
Charleen Baker  
A. Ballester  
Bill Barnett  
Massimo Battaglia  
Lauren Bernhofer  
Ronald Blackmon  
Emmanuel Brako  
Mark Brand  
Charles Buer  
N. Dwight Camper  
Jorge Canhoto  
Javier Castillon  
Guadalupe Cavazos  
Long-Fang Chen  
Ming Cheng  
Glenn Collins  
Nancy Collins  
Michael Compton  
Edwin Cooper  
Douglas Darnowski  
Paula Dehn  
Sarwan Dhir  
Patricia Dixon  
Rune Djurhuus  
Barbara Doonan  
Michael Dornish  
Paul Drayton  
Leo D'Souza  
Marceline Egnin  
David Ellis  
Marietta Ellis  
Karen Etchberger  
Michael Fay  
Stephen Ferkovich  
Daniel Focht  
Bronwyn Frame  
Yoshitatsu Fukabori  
Miho Furue  
John Gallagher  
Alan Goldberg  
Mary Goldring  
Dalton Gossett  
James Grasela  
Snehasish Dutta Gupta  
Nidia Guzman  
Indra Harry  
L. Cheryl Hendrix  
Melissa Hinga  
Walter Holder, Jr.  
Michael Horn  
Laurie Howard  
Arlene Howe  
Kikuo Iwabuchi  
Alba Jofre-Garfias  
Heidi Kaeppler  
Toshikazu Kamiya  
John Kemp  
Jonathan Kiel  
Mitchell Klausner  
Hans Koblet  
Toyoki Kozai  
Lee Leak  
Edward LeCluyse  
Lisa Lee  
Peggy Lemaux  
Mats Levall  
Juliet Lobo  
Alicia Lorenti  
Victor Loyola-Vargas  
Chin-Yi Lu  
Chunsheng Lu

Timothy Lyerla  
Akira Machii  
George Mandakas, III  
Lurline Marsh  
Lucia Martinelli  
C. Thomas Mathews  
Helena Mathews  
Thomas McCoy  
Craig Meyers  
David Mills  
Sylvia Mitchell  
Lanny Neel  
Yoshiyuki Niimi  
M. Normah  
Kim O'Connor  
Helga Ogmundsdottir  
Arthur Olney  
Lee Olson  
Kee Paek  
Wayne Parrott  
Margaret Penno  
Abel Piqueras  
Shirley Pomponi  
Kedar Prasad  
Simon Raharjo  
Kanniah Rajasekaran  
Rosemary Raphael  
Nancy Reichert  
Stephen Rennard  
Catherine Rivera  
Laura Rhoads  
David Richardson  
Baruch Rinkevich  
Elizabeth Roemer  
Suzanne Rogers  
Victoria Roman  
Shyamal Roy  
John Ryan  
Hidetsugu Saito  
Hamako Sasamoto  
Hidetaka Sato  
Shirley Sato  
Praveen Saxena  
Christian Schopke  
Senthamil Selvan  
Vallabh Shah  
Kiran Sharma  
Susan Scharffenberg  
Walter Schlage  
David Songstad  
Randall Strode  
David Stuart  
Rony Swennen  
Lining Tian  
Lance Tibbetts  
Roger Timmis  
Lucia Torielli  
William Treat  
Harold Trick  
Robert Truax  
Susan Truckenmiller  
David Tricoli  
Ana Vieitez  
Baziel Vrient  
Timothy Ward  
Elisabetta Weber  
Lloyd Wolfenbarger  
Ann Wright  
David Wuosmaa  
Anand Yadav  
Edward Yeung  
Cecilia Zapata  
Curtrice Zeigler

## Laboratory Materials and Biosafety

The Laboratory Materials and Biosafety Committee (LMBC) provides a mechanism within the Society for In Vitro Biology (SIVB) to promote laboratory standards, biotechnology practices, laboratory materials, safety equipment, and facilities that constitute biosafety levels 1-4 associated with in vitro and biotechnology methodology. The goals of the LMBC are: 1) to provide an educational process and format to distribute information regarding potential hazards and risk assessment associated with: the cell culture process, the use and handling of biological agents, quality control of biomaterials, and updates on federal regulation pertinent to research, industry and clinical biotechnology applications; 2) to recommend laboratory practice, operation, or materials based on risk assessment of the agent/or material and the laboratory activity involved; and 3) to promote the interaction of committee members with national and international scientists, professional groups, and manufacturers regarding the design, processing, and use of material for in vitro and biotechnology methodology.

The LMBC committee members represent government, university/academia, private industry and include: *Linda B. Jacobsen* (chair), Roche Diagnostic Corporation; *Sandra L. Schneider* (co-chair), Research and Clinical Laboratory Systems; *June Bradlaw*, International Foundation for Ethical Research; *Walter Finkbeiner*, University of California-San Francisco; Thomas Goodwin, Johnson Space Center, NASA; *John Harbell*, Institute of In Vitro Sciences John Masters, University College London, Institute of Urology-UK; *Colette Rudd*, Rudd & Associates; *Lynn Rutsky*, The University of Texas Health Science Center Houston; William J. Smith, U.S. Army Medical Research Institute of Chemical Defense; *Glyn N. Stacey*, National Institute for Biological Standards and Control-UK; and *Alda Vidrich*, University of Virginia Health Sciences Center

The LMBC will hold their annual meeting with the Vertebrate and Toxicology Sections during the 2005 Meeting in Baltimore, Maryland. The Committee continues to actively promote topics related to tissue engineering, public health policy and risk analysis. Toward this goal, Committee members continue to work with and support the efforts of the: FDA Center for Devices and Radiological Health in the area of regulatory and standardization for biomaterials and tissue components; and the American Association Advancement Science and American Institute Biological Sciences for standardization of in vitro technologies.

Linda Jacobsen, Chair  
linda.jacobsen@roche.com

## Nominating

Nominations are being accepted for Society of In Vitro Biology (SIVB) 2006-2008 Officer and Executive Board Positions. The SIVB is a volunteer scientific society with elections to be held during Fall 2005. Please contact the SIVB office [sivb@sivb.org](mailto:sivb@sivb.org) or Dr. Sandra Schneider.

Sandra L. Schneider, Chair  
[drsandra@stic.net](mailto:drsandra@stic.net)

## Publications

***In Vitro-Plant Report.*** During the 2004 calendar year, *In Vitro Cellular & Developmental Biology - Plant (IV-P)* received 171 manuscript submissions, a 35% increase over 2003. This number included four invited review articles and eight symposium proceedings. Excluding the invited reviews and symposium proceedings, the rejection rate was 52%. Approximately 25% (42) of the submissions came from authors in North America, 23% (40) from India, 18% (31) from Europe, 16% (28) from Asia, 12% (20) from Latin America with the remainder from Australia (5), Middle East (4) and Africa (1). The average time from receipt to acceptance was 11.8 weeks, a significant increase over 2003 (9.3 weeks).

The large increase in submissions and stable rejection rate resulted in a slightly larger number of articles per issue (14.75 vs 14.25 in 2003 and 13.25 in 2002).

We perceive the overall quality of our articles surpasses that of our two most direct competitors (*Plant Cell Reports*, *Plant Cell Tissue Organ Culture*), however, this is not reflected by journal impact factors. IV-P has a broader array of matrix categories compared to the other two. The most recent journal impact rating for IV-P, based on year 2003 data, improved to 0.697 vs. 0.440 in 2002.

Significant progress was made in 2004 regarding the incorporation of IV-P into the PubMed, Medline, and other indexing services this year;

IV-P is converting to an online editorial submission and processing system in 2005, through a discounted arrangement with CAB. This system will reduce mailing times and expense and speed the timeliness of reviews; provide. It will also permit online electronic submission; speed the transfer of accepted manuscript files to the publisher; and automate the editorial tracking process. (Data from Greg Phillips, Editor-in-Chief, *IV-P*).

***In Vitro-Animal Report*** (Based on data from 3/1/04 through 2/28/05). The journal experienced a 22% decrease in total manuscript submissions over the comparable period last year (82 vs. 105). The published totals for the past year vs. the prior year are: 66 regular papers (vs. 85), 11 Reports [formerly scientific Letters-to-the-Editor] (vs. 19) three opinion Letters-to-the-Editor, one invited review, plus one book review. Of the 82 submissions, 53 were accepted, 18 are still in revision or review and 11 were rejected.

In addition to the USA, there were 22 countries represented among the submissions received in 2004. Overall, average time from receipt to first

decision in the review process was 5.3 weeks (vs. 5.6 weeks). Online papers for which first decisions have been made within this report period maintained an average of 4.7 weeks.

Online submission and review began in November 2002. By the end of the current report period, approximately 94% of the submissions received were online submissions. The remaining were hardcopy submissions, which continues to be allowed as an option. Competition posed by the proliferation of new online journals that overlap our niche and themes and the constantly changing electronic revolution in publishing and marketing remains a challenge. We have seen constant improvements in the implementation of As Soon As Possible (ASAP) publishing of papers after acceptance in pdf file format and getting the information into popular indexes as soon as possible. Marketing, maintenance of visibility of the journal and troubleshooting with specific clients remains a challenge due to the nature and modest resources of the Society in this area. We remain optimistic that time and a sustained effort in marketing, with emphasis on benefits of the electronic aspects and the journal's solid history, will continue to aid in maintaining our competitive position in the publication arena. (Data from Dr. Wallace McKeehan, retiring Editor-in-Chief, *IV-A*)

***IAPTC&B Publications through IV-P.*** The International Association of Plant Tissue Culture and Biotechnology (IAPTC&B) publishes two issues of IV-P per year using a separate editorial staff. This allows IV-P to publish 8 issues per year instead of 6 and gives IV-P an international exposure it might not have otherwise.

The editorial address was changed from Singapore to Malaysia because E. C. Pua (Editor-in-Chief) had accepted a new academic position at the Monash University Malaysia in July 2004. The new address is: School of Arts and Sciences, Monash University Malaysia, No. 2, Bandar Sunway, 46150 Petaling Jaya, Selangor, Malaysia; phone: 603-5635-8639; fax: 5635-8640; email: [pua.eng.chong@artsci.monash.edu.my](mailto:pua.eng.chong@artsci.monash.edu.my) or [ecpua@monash.edu.my](mailto:ecpua@monash.edu.my). This change was announced in *In Vitro-Plant* 40: 127 (March/April 2004) and the new editorial address was printed in the journal from Sept/Oct 2004 onwards. (Data from Eng Chong Pua, Editor-in-Chief, IAPTC&B)

***In Vitro Report.*** The electronic version of *In Vitro Report* has been very well received. The new layout allows for more abstracts to be highlighted as well as a tremendous cost savings to the society. Kimberly Rayford has done an out-



*The fourth annual silent auction was successful, offering a wide variety of items for participants to bid on.*

standing job as Editor-in-Chief and has continued to maintain the quality of the *In Vitro Report*. New articles are submitted in a timely fashion and the abstracts provide the general membership with the most up to date information about the research of their colleagues. (Submitted by Kim Rayford, Editor-in-Chief, *In Vitro Report*)

Michael Horn, Chair, Publications Chair  
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Wallace L. McKeenhan, Editor-in-Chief,  
*In Vitro – Animal*  
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Gregory C. Phillips, Editor-in-Chief, *In Vitro – Plant*  
gphillips@astate.edu

Eng Chong Pua, Editor-in-Chief for the IAPTC&B,  
*In Vitro – Plant*  
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Kimberly Rayford, Editor-in-Chief, *In Vitro Report*  
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Michele G. Schultz, SIVB Publications Manager  
michele@sivb.org

## Public Policy

The Public Policy Committee is a standing committee of the Society and is designed to aid its members and the general public to obtain a more informed understanding of in vitro biology and its research process and progress. The Committee is charged to aid the Board of the SIVB in their dealings with members of Congress and other governmental officials for the purpose of giving advice on funding priorities and other relevant matters. With the assistance of other associations the Public Policy Committee's goal is to actively educate its members about current issues affecting the scientific community and society as a whole. To assist the Society in this mission it is currently a member of the following associations that work with legislators to effect national and international scientific policy: AIBS, American Institute of Biological Sciences provides a variety of public policy services for their members and the biological community at large; CAST, Council for Agricultural Science and Technology assembles and communicates science-based information regionally, nationally, and internationally on fiber, food, natural and agricultural resources and environmental issues to its members including legislators, media, regulators, policy makers, private sector, and the general public; AAAS, American Association for the Advancement of Science examines science-related questions of concern to world citizens and their governments, including human rights and ecosystem protection, federal spending, ethics, and equity; IFER, International Foundation for Ethical Research is a non-profit group that is dedicated to finding non-animal alternatives for scientific research.

This year in order to inform the SIVB membership about the policy positions of the 2004 Presidential candidates, we provided links on the SIVB home page to their science policies as documented by AAAS.

Pamela Weathers, Chair  
weathers@wpi.edu

June Bradlaw  
jabradlaw@erols.com

Todd J. Jones  
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*Alcatraz was one of the attractions from the San Francisco Bay Cruise*

## Representatives of the SIVB

### American Type Culture Collection

The ATCC Cell Biology Collection has distributed over 67,000 units during 2004 and has replenished over 600 Working Cell Banks (WCBs) prepared from animal and hybridoma cell lines. During this period the personnel in the Cell Biology Collection has acquired, expanded, authenticated, characterized, and cryopreserved an additional 85 new items.

Most recently the ATCC has developed a partnership with Geron Corporation. Through this unique partnership we are able to link ATCC's capabilities in cell culture characterization and authentication with the preferred method of cell immortalization – hTERT. This technology allows for the immortalization of cell lines capable of extended proliferative capacity, stable genotype, and phenotype similar to the parental cells. Included among these immortalized products are CRL-4000

(BJ-5a), foreskin fibroblast and CRL-4001 (hTERT RPE-1), retinal pigmented epithelium cell lines.

In addition to the diverse holdings within the Cell Biology General Collection, the Stem Cell Center holdings range from embryonic stem cells (ESCs) to adult stem cells representing various species including mouse, zebrafish, and human. Extensive authentication and characterization are performed on these cells, including the ability of the ESCs to demonstrate germline competency and to form embryoid bodies that contain the three germinal layers (endoderm, mesoderm and ectoderm). In addition, maintenance of telomerase activity and expression of various undifferentiated markers, such as alkaline phosphatase, Oct 3/4 and SSEA-3, are assessed.

Yvonne A. Reid, Collection Scientist  
yreid@atcc.org



*Attendees enjoyed a tasty dinner while viewing the sights of the bay on the San Francisco Bay Cruise.*

## International Association for Plant Tissue Culture and Biotechnology

In 2004, the International Association for Plant Tissue Culture & Biotechnology (IAPTC&B) organized a national plant micropropagation conference themed: "Micropropagation – Technology and Production." The meeting was held on May 4-5, in Orlando, Florida at Leu Gardens. The speakers for the conference were a combination of commercial and academic authorities in Plant Tissue Culture. The speakers included Dr. Paul Read of the University of Nebraska, Dr. John Preece of Southern Illinois University, Mr. Ray Gillis of Agristarts, Dr. Ken Torres of Phytotechnology Labs, Mr. Kent Kratz of Casa Flora, Dr. Mark Bridgen of Cornell University, Mr. Gary Hennen of Oglesby, Dr. Jerzy Nowak from VPI, and Dr. Randy Niedz of the US Horticultural Research Lab. On the second day of the conference, participants toured Leu Gardens several of the local commercial tissue culture laboratories including AgriStarts, the University of Florida tissue culture lab in Apopka, and Casa Flora. The IAPTC&B thanks Dr. Randy Niedz of the US Horticultural Research Laboratory in Ft. Peirce, FL for serving as the local site committee chair for the 2004 meeting.

The next World Congress of the IAPTC&B will be held in Beijing, China from August 13–18, 2006. The theme of the Congress is: "Biotechnology and Sustainable Agriculture 2006 and Beyond". Scientific programs of the IAPTC&B Congress will cover various aspects of plant tissue culture and biotechnology. It includes current advances in plant tissue culture, plant molecular biology and biotechnology, impact of plant biotechnology on agriculture, industry and environment, intellectual property in biotechnology, biosafety and public acceptance of genetically modified plants, biotechnology related bioinformatics and other related fields. The website, <http://www.genetics.ac.cn/IAPTCB>, has registration and travel information. Travel fellowships will be awarded from the US branch of the IAPTC&B for members going to the World Congress.

At the August 2006 Congress of the IAPTC&B in China, a new U.S. national correspondent will be appointed for 4 years. We are beginning the process of searching for an individual to serve in this capacity.

Questions about membership in the IAPTC&B can be addressed to me at [mpb27@cornell.edu](mailto:mpb27@cornell.edu).

Mark Bridgen, IAPTC&B US Correspondent  
[mpb27@cornell.edu](mailto:mpb27@cornell.edu)



*Secretary Nancy Reichert (center) catches up with former board members Ray Shillito and Mary Ann Lila.*



*Treasurer Richard Heller and Past Secretary Barbara Reed enjoying themselves at the opening reception.*

2006

In Vitro Biology Meeting  
**Minneapolis**

Minnesota, June 3 - 6, 2006

**Save the date!**

Check **[www.sivb.org](http://www.sivb.org)**  
for the most up-to-date information

**TREASURER'S SUMMARY REPORT**  
**SOCIETY FOR IN VITRO BIOLOGY**  
**STATEMENTS OF FINANCIAL POSITION**  
**DECEMBER 31, 2004 AND 2003**

	<u>2004</u>	<u>2003</u>
<b>ASSETS</b>		
<u>Current assets:</u>		
Cash	\$ 77,046.00	\$ 114,057.00
Accounts receivable	55,730.00	47,383.00
Prepaid expenses	<u>21,819.00</u>	<u>27,073.00</u>
<b>Total current assets</b>	<u>154,595.00</u>	<u>188,513.00</u>
<u>Noncurrent assets:</u>		
Furniture and equipment, net	-	7,252.00
Investments	90,526.00	137,672.00
Inventories	<u>838.00</u>	<u>1,240.00</u>
<b>Total noncurrent assets</b>	<u>91,364.00</u>	<u>146,164.00</u>
<u>Other assets:</u>		
Deposit	<u>1,303.00</u>	<u>1,303.00</u>
<b>TOTAL ASSETS</b>	<u><u>247,262.00</u></u>	<u><u>335,980.00</u></u>
<b>LIABILITIES AND NET ASSETS</b>		
<u>Current liabilities:</u>		
Accounts payable	\$ 68,294.00	\$ 61,078.00
Deferred dues and subscriptions	<u>167,455.00</u>	<u>185,069.00</u>
<b>Total current liabilities</b>	<u>235,749.00</u>	<u>246,147.00</u>
<u>Long-term liabilities:</u>		
Deferred dues and subscriptions	<u>3,691.00</u>	<u>4,314.00</u>
<b>Total long-term liabilities</b>	<u>3,691.00</u>	<u>4,314.00</u>
<b>Total liabilities</b>	239,440.00	250,461.00
Net assets	<u>7,822.00</u>	<u>85,519.00</u>
<b>Total Liabilities and Net Assets</b>	<u><u>247,262.00</u></u>	<u><u>335,980.00</u></u>

# TREASURER'S SUMMARY REPORT

## SOCIETY FOR IN VITRO BIOLOGY

### STATEMENT OF ACTIVITIES FOR THE YEARS ENDED DECEMBER 31, 2004 AND 2003

	<u>2004</u>	<u>2003</u>
<b><u>Revenue:</u></b>		
Subscription and other publication income	\$ 186,631.00	\$ 200,198.00
Annual meeting income	196,536.00	130,394.00
Dues	118,011.00	103,596.00
Interest income	5,345.00	4,029.00
Contributions-plant	24,750.00	35,500.00
Contributions-toxicology	14,706.00	1,100.00
Contributions-other	7,919.00	27,515.00
Management Fee (IAPTC&B)	-	623.00
Miscellaneous income	29,766.00	20,743.00
	<u>583,664.00</u>	<u>523,698.00</u>
<b>Total revenue</b>	<b>583,664.00</b>	<b>523,698.00</b>
<b><u>Expenses:</u></b>		
Program services		
Publications	155,420.00	225,455.00
Annual meeting expenses	289,715.00	221,530.00
	<u>445,135.00</u>	<u>446,985.00</u>
<b>Total program services</b>	<b>445,135.00</b>	<b>446,985.00</b>
Supporting services		
Administration	213,703.00	167,368.00
	<u>213,703.00</u>	<u>167,368.00</u>
<b>Total expenses</b>	<b>658,838.00</b>	<b>614,353.00</b>
Change in net assets before unrealized gain/(loss) on investments	(75,174.00)	(90,655.00)
Unrealized gain/(loss) in fair value of investments	(2,523.00)	853.00
Change in Net Assets	(77,697.00)	(89,802.00)
Net Assets, beginning of year	85,519.00	175,321.00
<b>Net Assets, end of year</b>	<b>\$ <u>7,822.00</u></b>	<b>\$ <u>85,519.00</u></b>