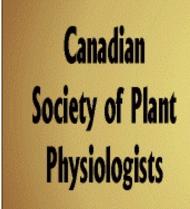
# **BULLETIN**

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# Société Canadienne de Physiologie Végétale

#### DECEMBER 2002

### DÉCEMBRE 2002

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#### MESSAGE FROM THE PRESIDENT



The last Annual Meeting was hosted by the University of Calgary in June 2002 and involved only the CSPP/SCPV membership. I was so pleased to see so many of our members, young and old, support the efforts of Peter Facchini and Doug Meunch

and the local committee in organizing such a wonderful meeting. On behalf of the CSPP / SCPV, I extend special thanks to Peter Facchini, Doug Meunch and the local organizing committee for a terrific meeting! The combination of the impressive science presented by all participants and the outstanding symposia lectures presented by the national and international invited speakers made this annual meeting very stimulating and exciting. In fact, several of the international invited

speakers commented to me during the meeting that they were impressed not only by the research presented in general but were especially impressed by the high calibre of the science presented by the graduate students and postdoctoral fellows. Congratulations to all CSPP / SCPV members who attended the meeting in Calgary!

This is an appropriate time to remind all members that our next annual meeting is scheduled for the last week of June 2003 at St. Francis Xavier University, Antigonish, Nova Scotia. This meeting will be held jointly with the Canadian Botanical Association. Rob Ireland (CSPP / SCPV, Mount Allison University) and David Garbary (CBA, St. Francis Xavier University) are leading the organization of this annual meeting. I encourage all members to attend this meeting and to support the efforts of Rob Ireland, David Garbary and the local committee in organizing an exciting scientific meeting. See you in beautiful Nova Scotia next June!

As President of the CSPP / SCPV, I was invited by the Federation of European Societies of Plant Physiology (FESPP) to attend their meeting in Hersonissos, Crete, in September, 2002. The FESPP had organized a session where the presidents of the respective societies from the USA, Canada, Australia and Japan were invited to present a brief summary of the status of plant science research in their respective countries. This was a very interesting session and it was quite evident that the climate for basic research in North America differed considerably from that in other regions of the world. The data presented by both Dan Cosgrove, President of the ASPB, and me indicated the trend to increased funding for research in both Canada and the USA. Over the last 5 years particularly, this has created a very positive environment for basic research in Canada, including research in plant sciences. Many of the European participants, young and old, indicated that this was not the case in Europe and Australia. However, I indicated that although changes in research funding were very positive due, in part, to new programs established through the Canada Foundation for Innovation (CFI), Canada Research Chairs (CRC) as well as others, the proportion of research funding allocated to plant sciences in Canada and funding for university infrastructure funding in Canada still severely limits plant science research in Canada. Although the reallocation committee working on behalf the Plant Biology and Food Science Grant Selection Committee (GSC03) has worked hard and has been reasonably successful to prevent the erosion of funding to this committee, the data indicate that GSC03 has lost about 1% of its overall budget as a consequence of each NSERC Reallocation Exercise. Basic research in Biology receives by far the greatest share of the NSERC budget for Discovery Grants (29%). Engineering is next with 25% of the total budget. Of the 29% of the Discovery Budget that goes to Biology, 35% is allocated to research dealing with animals and only 16% is allocated to plant sciences. Thus, I indicated that Canadian plant scientists have to increase their share of the total research "funding pot". One step in this direction was the creation of a new confederation of plant sciences societies called Plant Canada. One purpose of Plant Canada is to lobby for increased funding for research in all aspects of plant science in Canada. Furthermore, I briefly discussed the continued underfunding for university infrastructure and its impact on the research and teaching mandates of Canadian universities. However, with the trend for increased research funding, the general increase in university enrolments in the biological sciences and the need to fill so many tenure-track faculty positions in Canadian universities over the next decade has created a time of very promising job prospects for graduate students and post doctoral fellows in all areas of plant sciences. Because issues concerning the environment, the Kyoto Agreement and GMOs are becoming so politically prominent, we as plant scientists must show the politicians and bureaucrats that we have the necessary expertise and

knowledge to provide important and unbiased contributions to these ongoing debates. Thus, the future for plant science in Canada is bright but we must be vigilant!

Carol Peterson (U of Waterloo), President of Plant Canada, recently announced that in addition to the two founding societies (CSPP / SCPV and the CBA), Plant Canada now includes the Canadian Weed Science Society, the Canadian Phytopathological Society and the Canadian Society of Soil Science. These groups will send their Plant Canada Representatives to the meeting in Antigonish. In addition the Canadian Society of Agronomy is considering to join Plant Canada and will send two representatives to Antigonish to investigate this possibility further. The initial meeting to establish Plant Canada took place during the joint CSPP / CBA meeting in London, Ontario in 2000. The next meeting of all societies within Plant Canada will take place in 2005 in Edmonton.

This autumn, I met with Larry Peterson (Botany, U of Guelph), Editor of the Canadian Journal of Botany. We discussed the fact of the increased competition for publications in Plant Physiology, which has lead to an increased rate of rejection of very good manuscripts. Larry is very keen to increase the frequency of publication of CSPP / SCPV members in the Canadian Journal of Botany to raise the prominence of this scientific journal. The Canadian J. of Botany will also consider the prospect of publishing scientific reviews derived from the symposia held at Annual Meetings of the CSPP / SCPV. Although this will not be possible for the 2003 Annual Meeting, the CSPP executive and organizers of the Annual Meeting scheduled for Guelph in 2004 should keep this in mind. As President of the CSPP / SCPV, I support Larry's efforts to make the Canadian Journal of Botany an excellent, alternative venue through which North American plant scientists can disseminate their research. To this end, Larry Peterson is also lobbying NRC to rename the Canadian Journal of Botany. Thus, I encourage all members of the CSPP / SCPV to support Larry in these efforts. One of the best ways we can do that is to submit our papers to his editorial office for consideration.

Finally, I have been in contact with most of the chairs of the various CSPP / SCPV Award Committees (Gold Medal Award, Krotkov Award, CD Nelson Award, Tree Physiology Award, Life Membership Award) and they indicate a paucity of nominations. I encourage all members of the CSPP / SCPV to consider worthy nominees and to take the time to assemble a letter of nomination so that we can acknowledge their contributions to plant science and to the society. These committees need more work!

In closing, warmest wishes for the holiday season and a happy and successful New Year. See you 2003!

Cheers, Norm Huner

#### MOT DU RÉDACTEUR



Il me fait plaisir de vous faire parvenir ce premier numéro du bulletin d'information de la Société Canadienne de Physiologie Végétale (CSPP/SCPV) pour l'année en cours. C'est avec beaucoup d'intérêt que j'ai joint le Comité Exécutif de la CSPP/SCPV en juin 2002 à titre de secrétaire. Mise à part

les tâches cléricales rattachées à ce poste, une nouvelle responsabilité s'est ajoutée cette année, celle de transmettre aux membres les informations relatives à la Société par le biais d'un bulletin d'information. Considérant l'absence de parution d'un bulletin depuis quelque temps, ce premier numéro couvrira plusieurs sujets dont certains datent de plus de 18 mois. Tout en

vous demandant votre clémence pour cette lacune, je tenterai au cours de mon mandat de vous informer un peu plus assidûment des nouveaux développements concernant votre Société.

Je vous invite donc à lire attentivement votre bulletin d'information. J'invite également tous les membres de la CSPP/SCPV qui ont des informations qui nous touchent à me faire parvenir cette information afin que je l'incorpore dans un des prochains numéros. Sans faire aucune promesse, j'ai l'intention de publier un bulletin du même genre au moins trois fois par an.

Bonne lecture

E-roortiroo

Pierre Bilodeau, Rédacteur/Editor

#### **EXECUTIVE**\_

During the 2002 Annual General Meeting (AGM), the Nomination Committee presented several new nominations for various vacant positions on the CSPP/SCPV Executive and Committees. These nominations were carried forward and the nominees were all elected. You will find a list of these new officers adjacent to this paragraph. Note that the numbers in brackets represent the last year of mandate of each elected member.

For your information, I have included a table containing the positions, names, affiliations and E-mail addresses of each member on the Executive Committee. This table can also be found on the CSPP/SCPV web site (www.cspp-scpv.ca) along with many other useful facts. I urge you to visit our web site on a regular basis as the information is updated on a regular basis. Finally, on behalf of the Executive Committee and of all the CSPP/SCPV members, I would like to give our sincerest thanks to Michael Stasick who has done a very good job at maintaining this web site over the recent time.

Executive:		
Vice-President	H.S. (Deep) Saini	(2003)
Secretary:	Pierre Bilodeau	(2004)
Treasurer:	Harold Weger	(2004)
Eastern Director:	Priti Krishna	(2004)
Western Director:	Carl Douglas	(2003)
Science Policy Director	r:	
	C. Peter Constabel	(2004)
Senior Director:	Fathey Sarhan	(2004)
<b>Committee Members:</b>		
Meeting Site:	Joan E. Krochko	(2004)
Nominating:	Peta Bonham-Smith	(2004)
CD Nelson:	David N. Kristie	(2004)
Gold Medal:	Peter A. Jolliffe	(2004)
Gleb Krotkov:	Roger F. Horton	(2004)
Tree Physiology:	Allison R. Kermode	(2004)
Ann Oaks Foundation:		
	Elizabeth Weretilnyk	(2006)
	Connie G. Nozzolillo	(2005)

Position	Name	Affiliation	E-mail
Past-President	Gregory Taylor	University of Alberta	pastpres@cspp-scpv.ca
President	Norman Huner	U. of Western Ontario	president@cspp-scpv.ca
Vice-President	H. S. Saini	Univ. de Montréal,	cspp-vp@cspp-scpv.ca
Senior Director	Fathey Sarhan	UQAM	seniordirector@cspp-scpv.ca
Secretary	Pierre Bilodeau	Medicago Inc.	secretary@cspp-scpv.ca
Treasurer	Harold G. Weger	University of Regina	treasurer@cspp-scpv.ca
Eastern Region Director	Priti Krishna	U. of Western Ontario	eastern@cspp-scpv.ca
Western Region Director	Carl Douglas	U. of British Columbia	western@cspp-scpv.ca
Communications Director	David Gifford	University of Alberta	communication@cspp-scpv.ca
Education Director	John Hoddinott	University of Alberta	education@cspp-scpv.ca
Science Policy Director	Peter Constabel	University of Victoria	science@cspp-scpv.ca

The CSPP/SCPV would also like to thank members who are stepping down from positions on the Executive or other Committees. They are Elizabeth Werelilnyk (Eastern Regional Director), Georges Espie (Treasurer), Marc Fortin (Science Policy Director), and Alan Bown (Meeting Site Committee). It is through the dedication of

these active members that the CSPP/SCPV is able to pursue its mandate over the years. In fact, the Society is always looking for members willing to trade a bit of their time to help with various duties. Contact us if you are interested.

#### "PLANT BIOLOGY CANADA 2002"

Le congrès annuel « Plant Biology Canada 2002 » s'est tenu du 8 au 12 juin à l'Université de Calgary. Sous la codirection de Peter Facchini et Doug Muench, tous deux professeurs de cette même université, le congrès fut un succès sur toute la ligne avec un programme scientifique captivant et un programme social digne de la réputation du sud de l'Alberta. Malgré une température un peu maussade qui n'a toutefois pas empêché la tenue des activités sociales extérieures, l'ambiance fut énergisante de la réception d'accueil le samedi soir à la présentation des bourses et session de clôture le mardi en fin d'aprèsmidi.



Photo from Doug Muench

Graduate students - Day 1 of the meeting. Front row, left to right- Nam-Il Park, Nicole Ramesar-Fortner, Mark Belmonte, Simon Chuong. Second row- William Wu, Joenel Alcantara, Katherine Zulak.

Le programme scientifique fut des plus chargé avec plusieurs présentations plénières faites par des chercheurs de renommées internationales provenant des diverses universités canadiennes ainsi que de l'extérieur du Canada. Les trois thèmes principaux de ces plénières étaient : 1) Avancements récents en biologie cellulaire et du développement, 2) Interactions entre les plantes et leur environnement, et 3) Contrôle métabolique et ingénierie. Un très grand nombre de présentations suivaient les plénières en après-midi pour compléter le programme, ce qui donna la chance à plusieurs chercheurs canadiens et mêmes étrangers de présenter leurs résultats sous la forme de présentation orale. Les pauses-café étaient également très activées par les discussions entre collègues et par le

parcours de posters qui étaient disponibles. Un fait important à noter fut la présentation d'un poster par le Comité Éducationnel de la CSPP/SCPV, sous la direction du Dr. John Hoddinott. Le poster intitulé « Learning objects : A new jargon for an old problem. » visait à sensibiliser les divers intervenants sur la définition, l'utilisation et l'archivage des différents objets d'apprentissage. Une initiative canadienne, Campus Alberta Repository of Educational Objects ou CAREO, était également mentionnée.



Photo from Doug Muench

Rodeo - CSPP/SCPP delegates watching the bull riding during the afternoon rodeo at the "Girletz Rodeo Ranch".

L'adresse par le récipient du « 2001 Gold Medal Award », le Dr. John King, Département de Biologie, Université de Saskatchewan (voir la section CSPP AWARDS pour plus d'information), eu lieu le dimanche en début de soirée. La présentation intitulée « Metabolisms by mutations » mettaient en perspective une grande partie des travaux du Dr. King sur différents modèles végétaux incluant les cultures cellulaires de *Datura innoxia* et l'utilisation d'Arabidopsis thaliana. Cette présentation fut suivie de la remise de la médaille au Dr. King par le président de la Société, le Dr. Norm Huner. Finalement, le programme scientifique se termina avec les remarques de clôture et la remise des "President Award" (voir section CSPP Award pour détails).



Photo from Doug Muench

#### Dancing- Grad students line dancing at the banquet

Le programme social fut également des plus intéressant, avec comme point culminant la soirée barbecue-rodéo-

dance du lundi. Le « Girletz Rodeo Ranch » nous accueillait dans une ambiance digne du « Far West ». Un vrai ranch avec des vrais « cow-boys » et surtout un vrai rodéo nous ont fait vivre des émotions fortes. De voir ces jeunes gens se faire bardasser d'un bord et de l'autre sur le dos des chevaux déchaînés nous faisait apprécier la tranquillité de nos laboratoires de recherche et de nos bureaux de travail. Un souper copieux suivit le rodéo ce qui nous permis de refaire le plein d'énergie pour la danse. Finalement, nous avions droit à un vrai « band » western au milieu d'une grange comme environnement pour se laisser aller à quelques pas de swing, polka, samba et autres. L'ambiance générale fut à la fête durant toute la soirée et la foule de biologistes moléculaires, physiologistes, botanistes et les autres semblaient tous apprécier le rodéo de la CSPP/SCPV.

Pierre Bilodeau Secrétaire, CSPP/SCPV

#### CSPP AWARDS

#### 2001 CSPP Gold Medal.



Dr. John King has been a guiding light for plant physiology in Canada on many levels. For almost three decades, he has directed an innovative and productive research program that was exploring the genetic basis of physiological and metabolic processes at a time when this was almost unheard of in plant systems. His adoption of plant cell

culture systems and mutant selection techniques as a surrogate for the advantages presented by microbial cultures was a bold step, and one that led to important observations on the nature of metabolic organization and regulation in amino acid biosynthesis in plants. This expertise and experience led him to examine the impacts of specific herbicides on plant amino acid metabolism, while the isolation of mutant herbicide-tolerant lines has allowed him, in turn, to use these to dissect the regulatory patterns involved in branched-chain amino acid biosynthesis. Woven through this large body of work has been a consistent theme of rigorous biochemical examination of the mechanisms underlying the genetic and physiological phenomena he was addressing. Most recently, he has added another powerful tool, C-13 NMR, to the arsenal of analytical methodologies he brings to bear on problems of amino acid and one-carbon metabolism. John King is not only an excellent scientist but a superb teacher and communicator. Both within plant physiology courses and in courses offered in general biology, John has brought his enthusiasm for plants and his ability to illuminate complex topics to many hundreds

of students over the years. The range of his communication efforts is perhaps best reflected in his publication of two successful texts in the past decade. The single-authored text, "The Genetic Basis of Plant Physiological Processes" (1991) provided a valuable summary of this topic in the period just before the power of Arabidopsis genetics took over the field. On the other hand, the general reader is the target for his highly acclaimed introduction to plant physiological processes, "Reaching for the Sun" (1997). Finally, John King is one of those rare scientists who not only maintains an outstanding research program, and enjoys tranmitting his love of science to his students and the public, but also finds the time and energy to effectively serve his community on many levels. He has established an unrivalled reputation for commitment, reliability and rigour - if he is given a task, everyone knows it will be done properly and on time. As result, he hs been asked to play numerous roles within the Canadian academic and research milieu - expert panels, departmental review committees, grant selection committee, editorial board, task forces, department chair, and Group Chain for Life Sciences within the NSERC system. Not the least of these has been his direct service to the CSPP over the years, including his role as President in 1983-84.

In summary, plant physiologists in Canada have benefited from John King's energy, insight and dedication to the discipline for three decades, and the Committee considered him exceptionally well qualified for recognition of these contributions through being awarded the Society Medal in 2001.

#### 2001 C.D. Nelson Award.



Gregory Taylor, CSPP President presenting the award to Daphne Goring during the 2001 CSPP-ASPB Joint Annual Meeting in Providence, RI.

The C.D. Nelson Award Committee was pleased to recommend Dr. Daphne Goring for the 2001 C.D. Nelson Award. Dr. Goring is an outstanding young plan biologist who obtained her Ph.D. from the University of Toronto in 1990. After undertaking post-doctoral studies at the University of Guelph, Dr. Goring was hired as an assistant professor at York University in 1993. Since joining York, she has established an independent, internationally recognized, research program focussing on the signaling pathway involved in the self-incompatibility response in flowering plants. Many plants are self-sterile, which means they can only set seed by out-crossing. This presents a significant challenge to plant breeders in their efforts to generate new hybrid cultivars. Until fairly recently, little was known about the processes that prevent plants from fertilizing themselves. Dr. Goring has identified two key components of the stigma-based signal cascade that regulates the self-incompatibility response in Brassica, the mechanism used by these plants to promote out-crossing and prevent self-fertilization. The first of these is the "S receptor kinase" located at the plasma membrane nearest the stigma surface. In the case of plants receiving self-pollen, this receptor recognizes a component of the pollen cell wall, then binds a protein known as ARC1, which then acts in a signaling pathway leading to rejection of the pollen. This work has made an important contribution to our understanding of fundamental plant genetics and reproduction, as well as our ability to manipulate plant germplasm used in crop production.

Dr. Goring's success in the laboratory has been reflected in many ways throughout her career. She has been the recipient of NSERC scholarships and awards at the postgraduate and graduate level. She has been successful in attracting significant funding for her research. She has published her work in the form of more than 25 papers and review articles in some of the most prestigious journals in our field, including Science, PNAS, Plant Cell, Planta, and Plant Journal. She has been invited to present her work at some of the most prestigious meetings in her discipline. Most recently she was awarded a Premier's Research Excellence Award in Ontario. In the words of her peers, Dr. Goring "represents many of the ideals to which Canadian scientists should aspire. She has high scholarly standards, a strong record of research accomplishments, good international visibility, and a very thoughtful disposition that makes for an outstanding collaborator". "She shows a strong appreciation for whole plant physiology that is not always evident among molecular biologists".

On top of all her activities, Daphne has taken the time to share her knowledge and experience with students that span the full range of the lifelong learning spectrum – literally from school children to the Living and Learning in Retirement Series at Glendon College in Toronto. Very simply, she has made outstanding contributions to plant physiology.

#### 2001 Gleb Krotkov Award.



The Gleb Krotkov Award Committee was pleased to recommend Dr. Carol Peterson for the 2001 Gleb Krotfov Award of the Canadian Society of Plant Physiology. A daughter of the prairies, she began her career as a plant physiologist at the University of Alberta as a graduate student in the laboratory of Dr. E.A. Cossins, the 1998 Gold Medal

of the Society awardee. Since her return to Canada from doctoral studies at the University of California Davis, she has been a strong supporter of the CSPP, attending regional and national meetings faithfully with her

graduate students to present the results of their research into the functional anatomy of vascular plants. She has also been actively involved in organization of these meetings, first as a member of the anonymous team that planned the silver anniversary meeting of the Society at the University of Waterloo in 1983, and most recently, in making arrangements under a new format of a one-day session for the 2000 eastern regional meeting, also held at the University of Waterloo. From 1988 to 1990, she acted as Society treasurer, with an added responsibility of initiating the process of incorporation of the Society for income tax purposes. Owing to problems with the federal government bureaucracy, she had to call on legal assistance from the University of Waterloo in order to set the process in motion! In 1995, she was elected vicepresident for a two-year term, followed by a two-year

term as president, and a final two-year term as immediate past-president. During this period, she played a major role in the organization of Plant Canada, the new Federation of Plant Biology Societies in Canada.

Carol made these contributions as she performed her duties as a professor of biology at the University of Waterloo. In addition to teaching undergraduate courses, administrative functions and public relations activities, she supervised many excellent graduate students, acquired excellent levels of research support and made fundamental contributions to our understanding of root biology. It is for these outstanding contributions to the Society and to plant physiology in general, that the Canadian Society of Plant Physiology presented the 2001 Gleb Krotkov Award to Dr. Peterson.

#### 2002 President's Awards

The 2002 President Award for best oral presentation went to James D. Blonde from Queen's University (Bill Plaxton, supervisor) for his talk entitled: Purification and characterization of novel phosphoenolpyruvate carboxylase isoforms form endosperm of developing

castor oil seeds. The 2002 President Award for best poster was given to Tanya Hooker, University of British Columbia (Ljerka Kunst, supervisor) for her poster entitled: Progress in the positional cloning of the Cer7 wasless mutant of Arabidopsis thaliana.

#### 2002 George H. Duff Student Travel Awards

In total, 33 applications were received for the 2002 George H. Duff Student Travel Awards to attend the Plant Biology Canada 2002 annual meeting of the CSPP/SCPV

in Calgary. Nineteen Awards of \$200.00 each were made to the following recipients:

Wendy Allen
Johan Barker-Strom
Shabana Bhatti
James Blonde
Richard bourgault
Gale Bozzo
Ghislain Breton
University of Umea
York University
Queen's University
University of Guelph
Queen's University
UQAM

Jeff Dazon York University
Philippe Dufresne McGill University
Dawn Hall Brock University

Miyoshi Haruta University of Victoria University of Guelph Andre McCartney Mary Murphy University of Guelph University of Manitoba Jennifer Mustard Pauline Ouesnelle Trent University Fawzi Razem Univ. of Western Ontario Anthony So U. of Toronto (declined) Bahram Soltany U. of British Columbia Margarita Todorova-Bratonova **UWO** 

Queen's University

#### CONGRATULATIONS TO ALL AWARD WINNERS!!!

Barry Weese

#### TREASURER NEWS

#### Membership Renewals

Membership renewal forms have recently been mailed out. Please remember to renew before Feb. 1, 2003, in order to be included in the 2003 membership directory which will be mailed out in Spring 2003. For those people who wish to become members in order to attend the Eastern Regional Meeting at Brock University in December, new memberships received in November and December 2002 will also count for 2003!

#### CSPP/SCPV and CSPP/SCPV Inc.

As most CSPP/SCPV members already know, the Society actually consists of two separate entities: CSPP/SCPV and CSPP/SCPV Inc. Now that the Society no longer formally supports organized lobbying activities, the role

of CSPP/SCPV Inc in Society activities is greatly reduced. CSPP/SCPV Inc was originally established when the CSPP/SCPV decided to join the Canadian Federation of Biological Societies (CFBS). One of the roles of CFBS is to lobby on behalf of biological researchers in Canada. However, federal law prohibits charities from engaging in lobbying activities, and CSPP/SCPV is a registered charity. Therefore, CSPP/SCPV Inc was created in order to collect annual membership dues, a substantial portion of which went to support the lobbying activities of CFBS. A few years ago, the Society decided to withdraw from CFBS, which, among other things, meant that Society membership dues were greatly decreased.

As the Society is no longer supporting the lobbying efforts of CFBS, 100% of the membership dues collected by the Society are now used strictly for charitable activities. Therefore, beginning with the current round of membership renewals, membership dues will be paid to CSPP/SCPV rather than CSPP/SCPV Inc as in previous years. The only implication of this change will be that the receipts that are issued for membership renewals will be from CSPP/SCPV, which is a registered charity. Therefore, Society memberships paid via the personal funds of members are tax deductible (membership dues in previous years, which were paid to CSPP/SCPV Inc, were not tax deductible).

Even though CSPP/SCPV Inc no longer plays a major role in Society affairs, the corporation will be maintained for the time being; it will continue to exist. The reasons for maintaining the corporation are two-fold: 1) it may come in handy at some point in the future, e.g. if the Society

decides to resume lobbying efforts, and 2) there is substantial work and expense involved in creating a corporation (which was created during Alan Bown's tenure as President), but very little work or expense are involved in maintaining the existence of the corporation.

#### George Duff Travel Awards Fund and Ann Oaks Scholarship Fund

The CSPP/SCPV accepts donations for the above funds. Graduate students may apply for George Duff Travel Awards to help defray the costs of attending the Society's Annual Meeting, which in 2003 will be held in Antigonish, NS. The Ann Oaks Scholarship Fund is currently in the process of accumulating additional funds to be used for the establishment of three-year NSERC-level PhD (PGS B) graduate awards. Donations to both funds are tax deductible.

#### OBITUARIES \_\_\_\_

#### David Siminovitch (1916 - 2001)



David Siminovitch, prominent researcher on frost hardiness of plants, passed away on November 5, 2001 in Ottawa, Canada in his 86th year. Dave was a founding member of the CSPP, its first Secretary-Treasurer, and was elected Vice-President in 1968. He had not been in good health for several years and was

virtually bed-ridden. He sorely missed his wife, Helen, who had succumbed to cancer in 1986 at the same time as he, himself, was recuperating from lymphoma. It was his claim that the treatments for this often fatal disease had left his once brilliant mind "cloudy".

Dave received the B.Sc., M.Sc. and Ph.D. degrees in his home town of Montreal, Quebec, at McGill University finishing the Ph.D. under the prominent botanist G. W. Scarth in 1939. His early work, published between 1938 and 1941 with Scarth and collaborator and close friend, Jacob Levitt, formed part of the foundation of modern plant stress physiology.

Following the suggestion made by the Russian scientist N. A. Maximov in 1912, Siminovitch, Levitt and Scarth demonstrated that disruption of the plasma membrane was the primary cause of freezing injury in plants. Dave showed that intracellular ice was universally lethal to the plant cell and that such freezing did not occur in hardy plants. He and Levitt showed the importance of plasma membrane permeability in avoiding intracellular ice and showed how plasma membrane permeability increased during cold acclimation. More importantly, they showed

that extracellular ice caused cell dehydration which also could lead to disruption of the plasma membrane and "deplasmolysis injury" during thawing. This is now recognized as one of the key mechanisms of frost injury to cold hardy plant cells. They also predicted that for the plasma membrane to survive expansion during thawing with "constant thickness", the incorporation of membrane "mobile reserves" would be required. Siminovitch, Levitt and Scarth's early insights into the mechanism of freezing damage linked to plasma membrane disruption were remarkable for their time and would wait almost 40 years to be fully appreciated when Peter Steponkus identified expansion-induced lyses in isolated protoplasts. Once when asked how such progress could be made with only a light microscope in a walk-in freezer chamber, Dave said: "The light microscope was a powerful instrument in the 1930's for effective study of the dynamics of the cell and plasma membrane. In addition, Scarth had a particularly good understanding of protoplasmatology and Jake Levitt had a good grasp of chemistry and physical chemistry."

In 1940, Dave moved to the University of Minnesota for two years on a Royal Society Fellowship, then returned to Montreal where he spent the remainder of the war years working on penicillin research. He earned a second Ph.D at the University of Minnesota in 1948 with D.R. Briggs as advisor. There he initiated a series of studies of the biochemistry of trees with particular emphasis on the plasma membrane during winter acclimation. He used black locust as a model system and this work continued long after he joined the Canadian Department of Agriculture in 1950 as a research scientist. Except for the equivalent to a sabbatical year at the University of Sheffield in 1970, the remainder of his career was spent in

Ottawa at the Central Experimental Farm where he ultimately headed the winter hardiness section of the Chemistry and Biology Research Institute. His research focused on changes in proteins, ribonucleic acids, soluble carbohydrates and phospholipids in response to cold acclimation. Among the major finds with Ian de la Roche and Jas Singh was a thorough characterization of phospholipid unsaturation during cold acclimation. This work discounted one of the then held simple ideas that lipid unsaturation and plasma membrane fluidity were responsible for winter hardiness in plants. Their later work involved use of liposomes and free protoplasts. Jas notes that Dave was the first to use free protoplasts to characterize the freezing and thawing process. This development helped lay the foundation of modern work characterizing the role of membranes in plant cold hardiness.

By the standards of today, Dave's output of scientific publications was modest, about 50 papers in all. He once confessed that it took him a long time to accept that the road to success, i.e. promotion, required a continuous stream of published papers detailing step by step progress. His preference was to immerse himself in a problem and not to publish until it was solved, no matter how many years it took. Nevertheless, even after his enforced retirement at the age of 65, Dave continued to paint the fine details so important to the development of his chosen field of research. In the end, his work came at the right time and the impact was great. Among the many awards Dave received in recognition of his work are the Gold Medal of the Canadian Society of Plant Physiologists in 1972, election to Fellow of the Royal Society of Canada in 1973, and the Board of Governor's award from the Cryobiology society in 1987.

All who knew Dave well were aware of his remarkable level of intensity, energy, and focus and he had to stand for a great deal of kidding about these qualities. There were stories about his girdling black locust trees in Ottawa parks gaining unfavorable attention for Agriculture Canada in Parliament. Jake Levitt's favorite Siminovitch story described intensity and forgetfulness. "Dave inadvertently locked himself in a freezing chamber during one of those early freezing experiments-experiments which are now classics. It was late at night, he was alone and it got colder and colder, Dave and his microscope going to -5°, -10°, -15° C. The experiment went uninterrupted. Finally, with the microscope as his tool, he broke the chamber window and escaped". So indeed "The light microscope was a powerful instrument in the 1930's!"

Dave Siminovitch set the highest standards for himself and his contributions are significant, not only at the theoretical, fundamental level but also from the practical point of view. In his Gold Medal address at the joint ASPP/CSPP meeting in Calgary in 1973, Dave described his work with J.W. Butler of the Laurentian Concentrates Company, in developing a protective foam that could be laid down over tender plants when overnight freezing temperatures were expected and thereby lengthen the growing season. He will be missed, not only by his children, David, Jane and Michael, but also by his colleagues and friends.

<u>Michael J. Burke</u>, Professor and Associate Dean, Oregon State University

Constance Nozzolillo, Retired Professor, University of Ottawa

#### E. Roy Waygood (1918 - 2001)



Members of the Society will be saddened to learn of the death of the Society's 2nd President, E. Roy Waygood, in Vancouver, BC, on April 8, 2001. Roy Waygood was born in Bramhall, Cheshire, England. He immigrated to Canada and obtained his B.S.A. from the Ontario Agricultural College in 1941. He served as a Flight Lieutenant in the RCAF during World War II, flying

Mosquito planes from Canada to England and on to Africa for the RAF Transport Command. After the war, he completed his M.S.A. and his doctoral studies on respiratory enzymes in wheat at the University of Toronto in 1949 under the direction of Professor George H. Duff.

It was Dr. Duff who initiated the first of the nine Annual Research Conferences on Plant Physiology that resulted in the founding of the Canadian Society of Plant Physiology/La Société Canadienne Physiologie Végétale in 1958. The first conference, held at the University of Toronto, was centered on photosynthesis and respiration and Roy contributed two papers "Properties of ascorbic acid oxidase" and "Enzymes in photosynthesis" to the colloquium. These were typical of the subjects that occupied his research interests during the rest of his career.

Roy joined the Department of Botany of McGill University in 1949. In 1954, Roy and Marcel Cailloux co-hosted the 5th Annual Research Conference on Plant Physiology, jointly sponsored by McGill University and Université de Montréal. At the founding meeting of the CSPP/SCPV in 1958, Roy was elected as the Society's Vice-President. In the following year, he was elected as

the Society's 2nd President. In 1954, Roy was appointed Professor and Head of the Department of Botany at the University of Manitoba. He quickly established an international reputation for his research on plant enzymes. He pioneered investigations of the intracellular location, purification and properties of carbonic anhydrase and other carboxylases in leaves. With his students, postdoctoral fellows and colleagues, he carried out comprehensive studies on the mechanism of indoleacetic acid oxidation, on the biosynthesis of purine, pyrimidine and nicotinamide nucleotides and porphyrins and on phosphoenolpyruvate carboxylase and other enzymes involved in carbon dioxide fixation in higher plants and unicellular green algae. Several of his students have gone on to establish distinguished careers in plant biochemistry.

During his career, Roy was the author or co-author of some 88 publications and his work was widely recognized. Among the honours and awards that he received are Fellow of the Chemical Institute of Canada in 1957, Canada Centennial Medal in 1967 and Fellow of the Royal Society of Canada in 1971.

Roy learned the joys of "hobby farming" at his home in the outskirts of Winnipeg, where there were horses to ride and hay fields to manage. Many of his students fondly remember 'putting up the hay' in early July of each year! Many of the students also have fond memories of his wife, Adoree, and daughter, Pamela (who survive him) and the wonderful parties that the Waygoods gave for them at "the hobby farm".

Roy relinquished the position of department head in 1975. Upon his retirement in 1979, he moved first to Chilliwack, then to White Rock and New Westminster before settling in Vancouver, BC. There, he was reliably reported to have abandoned horses and managing hay fields in favor of long hours at the computer!

Roy Waygood was an important contributor to the founding and development of the Society. He should be remembered not only for this but also as an inspiration to the generation of plant physiology and biochemistry students that he trained and directed over a period of 30 or more years.

<u>Paul R. Gorham,</u> Professor Emeritus of Botany, University of Alberta

#### VACANT POSITIONS\_

November 27, 2002 Chief Scientific Officer Genome British Columbia

Genome British Columbia is a leader in developing a life sciences cluster in British Columbia. We are creating infrastructure, encouraging investment, transferring technology and establishing partnerships with researchers and research facilities throughout British Columbia. Current projects and platforms represent more than \$112M directed to genomics research, the single largest investment in life sciences R&D in BC. Genome BC is looking for a world-class scientist with an international reputation for excellence to join its executive team as Chief Scientific Officer. Reporting to the President and Chief Executive Officer, the CSO will lead the growth of a dynamic, internationally competitive genomics community in British Columbia through strong leadership within Genome BC and throughout the larger genomics community in BC.

The successful candidate will have:

- Ph.D., M.D. or equivalent, with recent publications in genomics, proteomics or bioinformatics;
- Vision, insight and experience to identify and move in new directions in science;
- Leadership skills and experience to contribute to the ongoing development of the Genome BC faculty and to foster collaborations amongst scientist at all levels and areas of interest.

Interested parties are encouraged to visit the website for more details on Genome BC and this opportunity. Applicants should send a statement of interest, a detailed CV, and names of 3 referees, via email to

csojob@genomebc.ca or to: CSO Position, Genome British Columbia 400 - 1367 West Broadway, Vancouver British Columbia, V6H 4A7 Canada.

November 25, 2002 Assistant Professor University of Saskatchewan

Fax number: 604-738-8597

UNIVERSITY OF SASKATCHEWAN Department of Biology (www.usask.ca/biology) PLANT FUNCTIONAL GENOMICS. The Department invites applications for a position at the Assistant Professor level for a tenure-track position commencing July 1, 2003 in the area of Lower Plant Functional Genomics. Applicants should have a Ph.D. and preferably teaching and post-doctoral experience. The successful candidate will participate in the undergraduate and graduate teaching programs of the Department, with specific responsibility in the area of lower plants including algae. The successful applicant is expected to develop a dynamic research program and interact on projects that complement research in the areas of plant development, cell biology, molecular biology, evolution, limnology and mycology in the Department and

on campus. The Department has excellent infrastructure including confocal and electron microscopes and DNA sequencing facility. The University is home to the Canadian Light Source, Canada's national synchrotron light facility (www.cls.usask.ca). Also located on campus are the NRC Plant Biotechnology Institute (www.pbi.nrc.ca), Agriculture & Agri-Food Canada Saskatoon Research Centre (http://res2.agr.ca/saskatoon), National Hydrology Research Centre and Innovation Place Research Park. The University of Saskatchewan is committed to employment equity. Members of designated groups (women, aboriginal people, people with disabilities and visible minorities) are encouraged to self-identify in their applications. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Send curriculum vitae, a statement of teaching and research interests, as well as the names, addresses, telephone/fax numbers and email addresses of at least three references to:

Dr. V.K. Sawhney, Head Department of Biology

University of Saskatchewan

112 Science Place Saskatoon, SK. S7N 5E2 Canada

Telephone: (306) 966-4400 Fax: (306) 966-4461

Email:sawhney@admin.usask.ca Application due: January 15,2003

Related Web Site: http://www.usask.ca/biology

November 04, 2002
POSTDOCTORAL POSITION
University of Manitoba

A position is available to isolate and characterize proteins (and their genes) that interact with a protein binding domain in a plant hormone-binding protein. A strong background in biochemistry and molecular biology is required. Appointment is for one year, renewable for a second year. Salary range is \$28,000 to \$33,000 per year. Send curriculum vitae and contact information for 3 references to:

Dr. Robert D. Hill Department of Plant Science University of Manitoba Winnipeg, MB R3T 2N2 e-mail: rob hill@umanitoba.ca

November, 2002 Commercial Manager DNA LANDMARKS

#### Qualifications:

- · MBA in Marketing or equivalent
- · Knowledge of the seed industry
- · Experience in biotechnology

- · A scientific background is an asset Challenges:
- · Implement and structure the Commercial Department
- · Develop marketing tools
- · Assemble consortia of clients
- · Develop and nurture industry contacts

The successful candidate for this challenging position is proactive and dynamic. He/she reports to the CEO and works closely with the Research Director and Technical Manager and understands the Intellectual Property environment. The knowledge of another international language is an asset.

As part of an initial integration period, the candidate will do the follow-up on various sales leads. Eventually, the candidate should be willing to travel abroad.

Candidates applying for this position should send a letter of introduction and their C.V. to:

France Bissonnette
DNA LandMarks, Inc.
84 Richelieu street
St-Jean-sur-Richelieu
Quebec, Canada J3B 6Z1
Tel: (450) 358-2621 poste 100

Fax: (450) 358-1154

E-Mail: bissonnettef@dnalandmarks.ca

October 24, 2002
Post-Doctoral Position
Agriculture and Agri-Food Canada

A post-doctoral position is available immediately to study the response of wheat-microbe interactions. Emphasis will be on signal transduction and protein-protein interaction mechanisms (Xing et al., Trends Plant Sci 2002). The work will involve molecular biology, genomics, proteomics, and transient gene expression analysis. A strong background in molecular biology or protein biochemistry is required. Experience in model systems such as Arabidopsis, rice, or yeast would be a plus. The research is funded through the second round of Agriculture and Agri-Food Canada Genomics Initiative. Please visit the web site for Visiting Fellowships in Canadian Government Laboratories 2002-2003 (http://www.nserc.ca). Priority may be given to candidates that are already on the eligibility list of this NSERC program. There are no restrictions on the nationality of applicants. Stipend will be CAD 39,804 annually. Funding is available for 2.5 years with possible extension to 3 years. For more information or to submit your CV (including a cover letter and the contact information of three references), please contact

Dr. Tim Xing Agriculture and Agri-Food Canada, Cereal Research Centre, Winnipeg, Manitoba, Canada R3T 2M9,

Tel: (204) 983-1465, Fax: (204) 983-4604, Email: xingtx@agr.gc.ca. October 16, 2002 Assistant professor University of Manitoba, CANADA

The Department of Plant Science, University of Manitoba, invites applications for a tenure-track position as an Assistant Professor in plant/crop physiology.

Candidates must have a Ph.D. and preferably postdoctoral research experience in plant or crop physiology. Excellent communication skills, a strong publication record, demonstrated leadership qualities and superior teaching capabilities at the undergraduate and graduate levels are essential. The successful candidate will be expected to develop a strong research program in plant/crop physiology in areas such as stress physiology, carbon balance, and plant growth and development. Applicants working at any level of organization (molecular, biochemical, whole plant, or field) are encouraged to apply. Potential areas for collaboration in the Department include host-pathogen interactions, postharvest physiology, herbicide resistance, remote sensing, breeding and plant propagation, and plant-microbe interactions. The successful candidate is expected to obtain external funding to support research and graduate students, to work collaboratively with other faculty members and with scientists at other institutions, and to interact with agricultural producers, extension specialists and agribusiness personnel. The position will begin March 1, 2003 or as soon thereafter as is mutually agreeable.

Applications including curriculum vitae, original transcripts, statements of teaching philosophy and research interests, reprints of recent publications, and the names, addresses (postal and email) and phone numbers of three referees should be submitted to

Dr. G.M. Ballance, Head, Department of Plant Science, University of Manitoba, Winnipeg, MB, Canada R3T 2N2.

Closing date for receipt of applications is November 29, 2002. For information on the Department of Plant Science and the University of Manitoba, visit our web site at http://www.umanitoba.ca/faculties/afs/plant\_science.

The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, aboriginal peoples and persons with disabilities. All qualified candidates are encouraged to apply, however, Canadians and permanent residents will be given priority.

October 8, 2002 POSTDOCTORAL POSITION UNIVERSITY OF SASKATCHEWAN, CANADA

A postdoctoral position is available immediately to study DNA repair and genome instability using Arabidopsis as a model organism. This initiative is in collaboration with Dr. H. Wang, a plant biochemist in the Department of Biochemistry, to investigate plant genes involved in DNA repair and cell cycle regulation, and to examine transgenic plants altered in the activity and expression of these genes. The promise of this research is that plantis more tolerant to genome instability than animals, whereas knockout animals with DNA repair genes often result in embryonic lethality.

Candidates with recent Ph.D. degree and background in plant biochemistry, cell biology, molecular biology and genetics are encouraged to apply. Annual salary begins with \$32,000 - \$35,000 based on experience. Please send CV and names of three references with contact information to:

Wei Xiao, Ph.D. Professor Department of Microbiology and Immunology University of Saskatchewan 107 Wiggins Road Saskatoon, SK, S7N 5E5 Canada

Tel: 306-966-4308 Fax: 306-966-4311

E-mail: wei.xiao@usask.ca

Web site: http://www.usask.ca/medicine/microbio/xiaow/

October 4, 2002
Postdoctoral position plant functional genomics
University of Toronto

A postdoctoral position is available in Arabidopsis functional genomics at the Department of Botany, University of Toronto. The project involves the identification of auxin signal transduction genes in plant embryo and vascular development. Review of applications will begin by October 2002. A strong background in molecular biology, genetics and transcript profiling is highly desirable. Please send a curriculum vitae, publication list and three letters of reference to

Dr. Thomas Berleth,
Dept. of Botany, Univ. of Toronto,
25 Willcocks Street,
Toronto M5S 3B2,
Canada;
email: berlethberleth@botany.utoronto.ca

#### **UPCOMING EVENTS**

#### 2002

#### Mechanisms regulating gene flow in flowering plants -

A Royal Society Discussion Meeting London, United Kingdom,

www.royalsoc.ac.uk/events December 4 and 5, 2002

#### **CSPP/SCPV** Eastern Regional Meeting

Brock University St Catharines, Ontario http://cspp-scpv.ca/othermeetings.shtml December 7, 2002

#### **Comparative Plant Genomics**

Cold Spring Harbor, New York, USA http://meetings.cshl.org/2002Arab.htm December 12-15, 2002

#### 2003

#### Conference on Plant-Made Pharmaceuticals, Quebec

City, Québec www.cpmp2003.org March 16-19, 2003

#### Plants and Microbe Adaptations to Cold

Quebec City, Québec www.pmac2003.org May 25-29, 2003

#### 7<sup>th</sup> International Congress of Plant Molecular Biology

Barcelona, Spain www.ispmb2003.com/ June 23-28, 2003

#### **CSPP/SCPV** Annual Meeting

Antigonish, Nova Scotia 25-28 June, 2003

# 19th International Congress of Biochemistry and Molecular and Cellular Biology,

Toronto, Canada, US www.nrc.ca/confserv/iubmb2003 July 20-24, 2003

#### **ASPB Annual Meeting**,

Honolulu, Hawaii, USA www.aspb.org/meetings/pb-2003/ July 26-30, 2003

#### 4th International Symbiosis Congress

Halifax, Nova Scotia, Canada http://people.bu.edu/dzook/ August 17-23, 2003

#### 12th World Forestry Congress

Québec City, Québec, Canada www.wfc2003.org/ September 21-28, 2003

#### **FUTURE CSPP/SCPV MEETINGS**

2004 Guelph, Ontario

with Plant Canada, Edmonton, Alberta

with ASPB, Montréal, Québec

#### COLLABORATORS

Note: We welcome your comments and suggestions for future publications of the CSPP/SCPV News Bulletin. Please forward all your written material to Pierre Bilodeau (secretary@cspp-scpv.ca).

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