DECEMBER 2014

CANADIAN IAPB NEWSLETTER

Newsletter of the International Association of Plant Biotechnology-Canadian Section

Editor: Abdelali Hannoufa
Agriculture and Agri-Food Canada, London, Ontario

Inside this Issue:

Happy Holidays

Message from The Outgoing President, Dr. Lining Tian

It's been my pleasure to serve IAPB-Canada during the past four years. We introduced several major changes to IAPB-Canada during this time. Previously, only one person, the National Correspondent, looked after IAPB-Canada business and issues. In order to explore and use other sources to promote IAPB-Canada further development and have the Association play a more prominent role in the society, we formed the Executive Committee. This new structure proves to be effective and the formation of the EX committee has prompted IAPB-Canada to function at a higher level.

IAPB-Canada meeting used to be called "Plant Tissue Culture and Genetic Engineering Workshop" and the meeting was held once every four years. Given the fast knowledge and technology development these days, IAPB-Canada meeting is now held once every two years. Also, the research area has expanded beyond tissue culture and genetic engineering and thus our meeting is now renamed as "Canadian Plant Biotechnology Conference (CPBC)". For the past four years we held two national meetings: 8th CPBC in Guelph in 2012 and 9th CPBC in Montreal in 2014. The conferences promoted communications and collaboration development in plant biotechnology in Canada. We thank the faculty of Plant Agriculture, University of Guelph and the faculty of Agriculture College and Department of Biology, McGill University, for their help and support for CPBC.

Students are important researchers in plant biotechnology and are the future of Canadian plant biotechnology development. IAPB-Canada provided financial support and presentation awards to many students during the 8th and 9th CPBC. These awards helped students to travel to

(cont'd on page 2)

the conferences to present their results, communicate with other Canadian plant biotechnologists and the presentation awards recognized students' hard work and achievements. Many organizations sponsored the CPBC and we thank them for their support.

Our association has also shown further development. IAPB-Canada has 122 members in 2014; up from 89 in 2010. We hope more plant biotechnologists will join IAPB-Canada in the future. We established a dedicated website (www.iapbcanada.ca) for information on IAPB-Canada and for better communications.

The new IAPB-Canada Executive Committee has been formed and the Committee will start to work from January 2015. Dr. Yafan Huang will take the roles of President and National Correspondent (NC) of IAPB-Canada. Dr. Abdelali Hannoufa will be the Vice President and Deputy National Correspondent. For the past many years, the NCs of IAPB-Canada were either from University faculty or from government laboratories. It is nice that we have a researcher from plant biotechnology industry to lead the association over the next four years.

IAPB-Canada is an important association for plant scientific research in Canada. It is different from other plant research associations in that it emphasizes technology development, promotes communications between the basic research and applied research and promotes fast transfer of scientific discoveries to technology development and society application. We hope IAPB-Canada will play more important roles in this direction.

The presidency of IAPB will be transferred from Dr. German Spangenberg (Australia) to Dr. Barbara Doyle Prestwich (Ireland) in January, 2015 and the 2018 IAPB Congress will be held in Dublin, Ireland.

It is the time to transfer my duty to the new President/National Correspondent of IAPB-Canada. I thank the Executive Committee, the former national correspondents of IAPB-Canada and many other people for their help and support to me during the past four years. I especially thank Mimmie Lu for helping to take care of various tasks of IAPB-Canada. I will stay in the EX committee for sometime as immediate past president and NC as observer (resource person).

I wish Dr. Y. Huang, Dr. A. Hannoufa and the New Executive Committee all the best in leading IAPB-Canada into the future.

Sincerely yours,
Lining Tian, Ph. D.
National Correspondent and President
The International Association for Plant Biotechnology – Canada Section

New IAPB Canada Executive Committee

Yafan Huang, Ph. D. (President and National Correspondent)
Abdelali Hannoufa, Ph. D. (Vice-President and Deputy National Correspondent/Secretary)
Xiu-Qing Li, Ph. D. (Director of Communication)
Pankaj Kumar Bhowmik, Ph. D. (Membership and Treasurer)
Rima Menassa, Ph. D. (Academic and Industry Liaison)
Gang (Gary) Tian, Ph. D. (PostDoc and Student Affairs)
Dhananjay Dhokane, (Student Affairs)
Lining Tian, Ph. D. (observer as immediate past president)

Message from the Incoming President/National Correspondent:

It is a great honor to be elected to serve as the new President and National Correspondent of IAPB Canada. Before moving into the new President's "virtual" office, I would first like to offer my sincere congratulations to Dr. Lining Tian for the wonderful and tireless work he has done for our association as the National Correspondent and President of IAPB Canada for the last 4 years. I first got to know Lining during the 2010 IAPB Conference in St. Louis, and have been very impressed by his hard work, organizational skills and dedications to this vibrant association. Working with his executive committees and local conference organizing committees, Lining helped to organize two highly successful biennial conferences in Guelph (2012) and in Montreal (2014).

IAPB Canada has been around for more than 40 years, and it has been serving very well as an association that provides one of the best forums for scientific discussions and promotion of plant research and biotechnology development. As we all know, Canada is one of the largest agricultural producers and exporters in the world, and agriculture is a key pillar for our economy. In order to maintain high productivity, sustainability and output in agriculture, plant scientists in Canada will need to work together to convert some of our major research discoveries into plant biotechnologies that will have significant impacts. Even though most of us focus our work on basic research, it is fundamentally important to ensure smooth translation of the knowledge we learn from the lab to our farmers and consumers. I believe that this knowledge translation process is where we, as plant biotechnologists, can contribute the most and make major impact on.

It is in the areas of research and collaboration, knowledge translation, product development and commercialization that I envision IAPB Canada to excel on. My role as in-coming President will work to continue the great tradition of this association, and to further build on what we have done in the past few decades. I am fortunate that through your election and volunteering, we have established an excellent and experienced executive committee to work for our association. The committee is consisting of senior researchers and also for the first time, postdoctoral and student representatives. This is going to be a productive group and I look forward to working with them closely. Currently, we have already identified several key working areas of our association that require immediate attention. We will work on these and will also like to hear from you regarding any comments and suggestions on how to improve our association.

Finally I would like to thank you for your continuous support and I wish everyone a very best holiday.

Dr. Yafan Huang, New President/National Correspondent, IAPB-Canada

Meet the executive committee of IAPB-Canada

President/National/Correspondent/Government Liaison:

Dr. Yafan Huang is the head of Performance Plants Inc., and is responsible for the overall science, technology and commercial development of the company. Performance Plants is one of the leading agricultural biotechnology developers of the world, and has a robust R&D platform, a solid product pipeline and a successful commercialisation strategy, securing licensing and co-development licensing agreements with many major international seed companies. In conjunction with its partners, it is opening up emerging agricultural biotechnology markets worldwide and creating new alliances, forming the basis of the development of next generation of high yielding crops for farmers around the world. For these achievements, the Company has recently won the prestigious 2014 Agrow Award in Best Industry Collaboration.

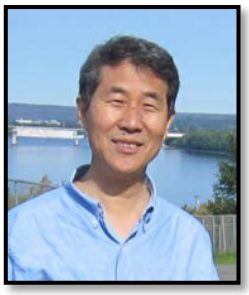
Dr. Huang earned his M.Sc. in Plant Biochemistry from Mount Allison University, and his Ph.D. in Plant Molecular Biology from Queen's University of Canada. Prior to his work in Performance Plants, Dr. Huang worked as a postdoctoral fellow in University of Illinois at Chicago in the field of plant genetics and hormone signal transduction. Dr. Huang specializes in the field of plant biotechnology and has published extensively in the research areas of plant signal transduction and abiotic stress tolerance, and has presented many keynote seminars and symposia in prestigious research conferences and research institutes around the world. Dr. Huang is one of the key inventors of over 86 patent applications of Performance Plants, and his profound international credibility in plant science has made strong contribution to his role as the President of the company, where he has successfully built many commercial partnerships.

Vice-President/Deputy National Correspondent/Secretary:

Dr. Abdelali Hannoufa is a research scientist with Agriculture and Agri-Food Canada in London, Ontario. He is an expert in the areas of functional plant genomics, biotechnology and secondary metabolism. In his career, Dr. Hannoufa has co-authored over 45 articles and two book chapters, and has presented his research findings at numerous scientific conferences. He was an invited speaker at many national international scientific meeting. He is currently leading or co-leading multi-institute research projects involving plant functional genomics and biotechnology. He served on the steering committee of the ABIP Cellulosic Biofuel Network and was the co-leader of the cell wall biosynthesis section of the Network. Dr. Hannoufa is also an adjunct professor and a full member of the school of graduate and postdoctoral studies at the University of Western Ontario. He is a member of the science advisory or editorial board of five international journals, and (cont'd on page 5)

(**Hannoufa cont'd**)
and has peer reviewed manuscripts for numerous international journals, and reviewed grant proposals for major granting agencies. Dr. Hannoufa has been a member of the operations committee of IAPB-Canada since 2011, and more recently served as its communications director. He is humbled and honored to be chosen to serve as vice-president and executive secretary of the association for the next few years. He will work in coordination with IAPB-president to advance the plant biotechnology agenda in Canada and internationally. Two areas where he sees the need for improvement are; 1) attracting high caliber students and researchers to IAPB-Canada, and 2) fostering better collaboration among Canadian plant biotechnologists to attract more research funding.

Director of Communication:



Dr. Xiu-Qing Li is a senior level Research Scientist of Molecular Genetics at Agriculture and Agri-Food Canada (Potato Research Centre, Fredericton, since 1997, tel. 1-506-4604511, Xiu-Qing.Li@agr.gc.ca), and has adjunct professor appointments at several universities; earned his "Doctorat d'Etat" (State Doctor, the highest doctorate degree in France) from Université de Paris-Sud. He worked as an associate research scientist at the Natural Science Research Centre of France (CNRS, France), associate professor at Peking University, invited professor at Université de Paris-Sud, and visiting professor at Purdue University. Dr. Li has chaired six times (years) the Somatic Genome Workshops of the Plant and Animal Genome Conference (PAG; San Diego, CA, USA), and currently is on editorial board of Genetics and Epigenetics and Potato Journal and editor of the book Somatic Genome Manipulation (Springer In press), Dr. Li has published 31 peer reviewed journal papers and 42 chapters in plant cell culture and genetic engineering (and 40 peer reviewed journal papers on other topics). Dr. Li's main scientific findings include the followings: Discovered for the first time plant cytoplasmic male sterility (CMS) from mitochondrial gene mutation (Li et al. 1988, Curr. Genet. 13:261); Discovered a nuclear-mitochondrial gene co-evolution system from studying different CMS systems in Brassica (Li 1998 PNAS, 95:10032); Discovered high specificity in plant mitochondrial gene expression at the cellular level (Li et al. 1996 Plant Cell 8:1961); Published with colleagues an Agrobacterium strain that has been now widely used (Li et al. 1992 Plant Mol Biol 20:1037); Proposed a genome generation cycle model and the concept of somagenetic variation (Li 2009 Heredity 102: 323); Identified genes governing potato chip color and sugar content (Liu et al. 2010 Mol Genet Genomics 284:147 and 2011 286:109); Characterized the process of a protein domain evolution (Li et al. 2011 PloS ONE 6:e18615); Discovered systematic differences between signal emitting and receiving in a human protein (cont'd on page 6)

(**Li cont'd**)
einteractome (Du et al. 2012 PloS ONE,9: e44872); Characterized the evolution of gene direction (Li and Du 2012 Scientific Reports 2:982) and the RNA poly(A) site (Li and Du 2014 BMC Evol. Biol. 14:162). Dr. Li has received awards from the Canadian Society for Horticultural Science, Ontario Fruit and Vegetable Growers' Association, the Potato Association of America, and the India Potato Association.

Membership and Treasurer:

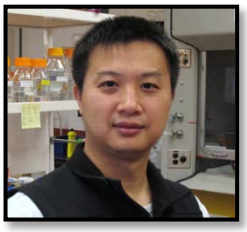
Dr. Pankaj Kumar Bhowmik received his PhD at the University of Kagawa, Japan and postdoctoral training at the University of Alberta and Agriculture and Agri-Food Canada (AAFC), Lethbridge Research Centre. He is currently working as a Research Officer under ACRD (Aquatic and Crop Resources Development) portfolio at NRC, Saskatoon. His research focuses on development of an effective and efficient microspore transfection protocol for wheat. Pankaj has been a member of IAPB since 2007. He is a member of the editorial board of Global Science Books and three other international journals and a recipient of many awards including JSPS (Japan Society for the Promotion of Science) postdoctoral fellowship, NSERC visiting fellowship and Izaak Killam Postdoctoral Fellowship. He feels strongly about the need to better explain the benefits of biotechnology to all consumers and stakeholders.

Academic and Industry Liaison:

Dr. Rima Menassa obtained her B.Sc. and M.Sc. in plant pathology from the American University of Beirut, and her Ph.D. in plant molecular genetics from the Department of Biology at McGill University. She then joined Agriculture and Agri-Food Canada first as a postdoctoral fellow with Jim Brandle, then as a scientist, and now leads the molecular farming effort for the production of recombinant proteins in tobacco leaves at AAFC. She holds an adjunct professor appointment at Western University in London Ontario, and has trained 5 research technicians, 3 postdoctoral researchers, 4 PhD students, and 7 MSc students. Dr. Menassa has been developing a program focused on producing high value recombinant proteins in plants, and has recently focused on producing veterinary subunit vaccines using transient expression by agroinfiltration and stable expression by chloroplast transformation. She has recently co-organized a workshop sponsored by the OECD on plant-made vaccines as an alternative to antibiotics: countering antimicrobial resistance to veterinary bacterial diseases and ensuring human food safety. This international workshop brought together experts from the research, regulatory, animal health and biotechnology industry communities. Dr. Menassa is funded by AAFC through the (cont'd on page 7)

(**Menassa cont'd**)
A-base, CCGI and ABIP programs. Dr.Menassa has co-authored over 40 scientific publications and was involved in three patent applications. She serves as a reviewer for many international scientific journals as well as national and international scientific granting agencies. Dr. Menassa has been a member of IAPB-Canada since 2012, and her duties on the executive committee include networking with Universities and Industry on Plant Biotechnology issues.

PostDoc and Student Affairs:



Dr. Gang (Gary) Tian is currently a NSERC postdoc visiting fellow at the Southern Crop Protection and Food Research Centre, Agriculture and Agri-Food Canada in London, Ontario. He received his M.Sc. and Ph.D. from the University of Western Ontario, and his B.Sc from Sichuan University in China. His current research focuses on the epigenetic control of plant abiotic stress responses as well as cell identity programming. The vector system he created provides a complete toolbox for plant functional genomic study and has been widely used around the world. He has published a number of research papers and delivered talks and poster presentations in various domestic and international conferences. Dr. Tian will focus on the postdoc and graduate student related issues, and provide assistance on communications such as newsletters and social media. Graduate students and postdoc fellows play important roles in the Canadian plant biotechnology community. Although the majority of them are generally satisfied with the current status of the research environment, problems are still recurrent in many aspects especially in terms of professional development, training and career building. By establishing effective connection networks among students, postdoc, scientists and industrial experts, we can fill the gaps and help young professionals succeed in both academia and industry.

Student Affairs:

Mr. Dhananjay Dhokane is currently pursuing his doctoral studies at Department of Plant Sciences, McGill University, Montreal, Canada. He is honored with prestigious Indian Council of Agriculture Research - International Fellowship (ICAR-IF), awarded by Ministry of Agriculture, Government of India and Graduate Student Excellence award, McGill University for my PhD studies. He is currently conducting research on "Identification of Fusarium Head Blight (FHB) resistance genes underlying resistance QTLs in wheat employing various Omics platforms". FHB is a most devastating disease which causes high yield losses and detoriates the grain quality due to accumulation of mycotoxins, rendering grains unsuitable for food or feed. He received his Masters in Biotechnology from Centre for Plant Molecular Biology and Biotechnology, Tamil Nadu Agricultural University, India. He was bestowed with Jawaharlal Nehru Fellowship (JNU), awarded by Department of Biotechnology, Government of India for my Masters studies. He did his Bachelors in Agricultural Biotechnology at College of Agricultural Biotechnology, Mahatma Phule Agricultural University, India. Being a graduate student representative, will promote membership among students and take care of their issues. Membership is open for all professionals/students worldwide busy with Plant Biotechnology. Come on and join hands with IAPB to bridge the gap between learning and applications.

Plant Biotechnology Company Profile: PlantForm Corporation

Dr. Don Stewart, Company President and CEO
Dr. J. Christopher Hall, Chief Scientific Officer

PlantForm Corporation is a Canadian biotechnology company responding to rising global demand for affordable biologic drugs by developing an innovative, low-cost manufacturing system for a wide range of plant-made pharmaceuticals.

PlantForm's patented molecular farming platform, *vivoXPRESS*™, produces high-quality monoclonal antibodies, therapeutic proteins and vaccines for the treatment of cancer, HIV/AIDS, Ebola and other devastating diseases.

Established in 2008, PlantForm licenses its technology from the University of Guelph, where it was developed by Dr. J. Christopher Hall, a company founder and its Chief Scientific Officer. At Guelph, Dr. Hall held the Canada Research Chair in Recombinant Antibody Technology and is a leading authority in the field of plant-based pharmaceutical production.

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(**PlantForm Corporation cont'd**)

Advancing the technology pioneered by Dr. Hall, PlantForm's *vivoXPRESS*™ system uses genetically modified tobacco plants to 'grow' biopharmaceuticals in contained greenhouse environments. The technology delivers high drug expression and fully mammalian glycosylation to eliminate the risk of unwanted immune system reactions. It has several other key advantages over standard biologic drug production systems based on mammalian cell cultures:

• it's fast and efficient, allowing for rapid drug development and production timelines
• it's highly versatile for new product development
• production capacity can be quickly and easily scaled up, and
• manufacturing costs are as much as 90 per cent lower than for mammalian cell-based production systems

PlantForm's pipeline currently features both innovator and biosimilar drug products, including:

• **Biosimilar trastuzumab**, a plant-produced version of Roche's breast-cancer drug Herceptin® (the brand name for trastuzumab). Herceptin® had US$6.8 billion in global sales in 2013; PlantForm's biosimilar version is expected to launch in world markets in 2017.
• **Antibodies for HIV/AIDS**, funded by the Government of Canada and the Bill & Melinda Gates Foundation through the National Research Council of Canada Industrial Research Assistance Program (NRC-IRAP) Canadian HIV Technology Development Program.
• **Recombinant butyrylcholinesterase (BuChE)**: PlantForm was recently awarded a contract to create stable glyco-modified *Nicotiana benthamiana* plant lines for the production of pharmaceutical proteins and to supply BuChE to Defence Research and Development Canada. BuChE is an enzyme used to provide preventative protection against nerve agents such as sarin gas.
• **Innovator antibodies for Ebola virus (Sudan strain)**

PlantForm's efforts to commercialize its *vivoXPRESS*™ platform are supported by private investors as well as funding from a variety of corporate and government partners, including those listed above. The company is currently raising a Series A round of financing to advance its lead drug candidate, biosimilar trastuzumab, into human clinical trials.

PlantForm and **PharmaPraxis** of Brazil recently formed a joint venture – called PlantPraxis – to develop and manufacture biosimilar and/or biobetter versions of several biopharmaceuticals for the Brazilian market.

PlantForm is interested in establishing partnerships with other companies to develop additional targeted biosimilar and innovator drugs.

For more information, please visit www.plantformcorp.com or contact:

Don Stewart President and CEO
don.stewart@plantformcorp.com
416.452.7242

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Plant Biotechnology News

Canadian Wheat Alliance, KWS, and Syngenta collaborate to improve wheat breeding efficiency

International private and public partners contribute $2.5 million towards more efficient wheat variety breeding for farmers world-wide

It was announced at ABIC in Saskatoon, SK that over the next four years, the Canadian Wheat Alliance (CWA) and two of the world's leading plant breeding companies, KWS and Syngenta Inc., will partner to develop high-quality wheat plants by improving existing doubled haploid technologies. These methods will reduce the length of the crop improvement program for wheat. This collaboration capitalizes on the specific expertise of each partner and the strength of their combined proficiencies, technologies, and infrastructures.

Existing methods of developing doubled haploid wheat plants can be costly, inconsistent, and time-consuming. The partners will increase efficiency to produce fertile doubled haploid wheat plants compared to more traditional methods. In a second step, the partners will leverage the new and more efficient doubled haploid technology platform in their respective wheat breeding programs, which will ultimately benefit agriculture industries in Canada and abroad.

Communicated by Alison Ferrie, NRC-Saskatoon

Performance Plants Wins 2014 Agrow Award for Best Industry Collaboration

Performance Plants Inc. (PPI), a leading Canadian developer of agricultural biotechnology, has received the prestigious Agrow Award for *Best Industry Collaboration*. Held in Amsterdam on October 30th, Dr. Yafan Huang, President and CSO, Performance Plants, was present to receive the honour.

PPI was awarded Best Industry Collaboration for its successful commercialization strategy, securing licensing and co-development agreements with collaborators such as Bayer CropScience, Mahyco and Biocentury Transgene. In conjunction with its partners, PPI is opening new markets, creating and strengthening both new and established alliances, forming a solid technology and product matrix for global commercialization.

PPI was also a finalist in a second of thirteen total categories: *Best R&D Pipeline*. Entries are judged by an independent panel consisting of senior experts worldwide. Agrow is a leading industry provider of agricultural news, analysis and data services in crop protection and business intelligence world-wide and hosts leading industry awards for innovation and excellence each year.
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(**Performance Plants cont'd**)

"We are incredibly honored to receive Agrow's prestigious Best Industry Collaboration award. Winning in this distinguished category celebrates our proven commercialization strategy with our collaborative partners, including major multinational and national seed companies," said Dr. Yafan Huang, President and CSO, Performance Plants. "PPI's robust R&D platform and solid technology pipeline allows our partners to leverage PPI's leading technologies into their products. This award is a testimonial to our company and our partners' efforts on plant trait development and product commercialization for farmers around the world."

For more information visit our newsroom at http://www.performanceplants.com or click *Performance Plants Wins 2014 Agrow Award for Best Industry Collaboration*.

For more information on Agrow Awards visit their website at https://ibiawards.com/agrow.

Dr. Yafan Huang, President and CSO, Performance Plants, was present in Amsterdam to receive the industry recognized 2014 Agrow Award for Best Industry Collaboration.

About Performance Plants Inc.:

Performance Plants Inc. is a global leader in discovery and development of second generation agricultural biotechnologies. The company's patented technologies enhance plant productivity (including seed yield and plant biomass) and weatherproof food and non-food biofuel crops through periods of drought and heat stresses resulting in a more abundant, consistent and cost-effective harvests for farmers. The company has a robust gene-discovery & technology evaluation pipeline, and has licensed multiple breakthrough technologies to many worlds' leading seed companies. The privately-held Canadian company is headquartered with R&D facilities in Kingston, Ontario, Canada. www.performanceplants.com

Enquiries:

Paige Talledo, Performance Plants Inc.
Tel. 1-613-545-0390
E-mail: talledop@performanceplants.com

Graduate (Ph.D. and M.Sc.) Student Positions

Applications are invited for M.Sc. and Ph.D. student positions in the department of biology at Western University (http://www.uwo.ca/biology). Research will involve functional characterization of microRNA156 and its target genes in major crops and model plants. The aim is to develop molecular tools for improving the nutritional quality and agronomic performance of major Canadian crops. Students will receive training in molecular biology, genetics, genomics, biochemistry, and other related areas. The student will conduct research at the Agriculture and Agri-Food Canada Research Station, which houses state of the art facilities for molecular biology research, and is within a short distance from the Western University campus.

We are seeking highly motivated candidates who are interested in long term research careers.

Candidates must hold a B.Sc. or M.Sc. in biology, biochemistry, molecular biology, or a related field. Students will be offered stipends to cover basic living expenses as per the guidelines of the department of biology.

Interested individuals should contact Dr. Abdelali Hannoufa at:
Agriculture and Agri-Food Canada
1391 Sandford Street
London, Ontario
N5V 4T3
Phone: 519 953 6621
Fax: 519 457 3997
Email: Abdelali.Hannoufa@agr.gc.ca

Plant biotechnology-related conferences:

•The 2nd Conference on Botany (CB 2015), March 18-20, 2015 Suzhou, China

•2015 Spring International Conference on Agriculture and Food Engineering (AFE-S).
April 14-16, 2015/ Beijing, China, http://www.engii.org/scet2015/

•14th International Rapeseed Congress, July 5, 2015 - July 9, 2015, Saskatoon, SK

2014 Plant biotechnology publications by IAPB-Canada members:

- Aung B, Gruber M, Amyot L, Omari K, Bertrand A and Hannoufa A (2014) MicroRNA156 as a promising tool for alfalfa improvement. Plant Biotech J. (in press: doi: 10.1111/pbi.12308
- Debnath, S.C. (2014). "Bioreactor-induced adventitious shoot regeneration affects genotype-dependent morphology but maintains clonal fidelity in red raspberry.", In Vitro Cellular & Developmental Biology - Plant. doi : 10.1007/s11627-014-9632-2
- Debnath, S.C. (2014). "Strategies and approaches to propagate strawberry nuclear stocks using a bioreactor.", Acta Horticulturae (ISHS), 1049, pp. 145-150.
- Debnath, S.C. (2014). "Structured diversity using EST-PCR and EST-SSR markers in a set of wild blueberry clones and cultivars.", Biochemical Systematics and Ecology, 54, pp. 337-347. doi : 10.1016/j.bse.2014.03.018
- Hannoufa A, Pillai B V-S, Chellamma S. (2014) Genetic enhancement of *Brassica napus* seed quality. *Transgenic Res.* 23: 39-52; Review article
- Li, X.-Q., and D. Du, 2014a Motif types, motif locations and base composition patterns around the RNA polyadenylation site in microorganisms, plants and animals. BMC Evolutionary Biology 14**:** 162.
- Li, X.-Q., and D. Du, 2014b Variation, evolution, and correlation analysis of C+G content and genome or chromosome size in different kingdoms and phyla. PLoS ONE 9**:** e88339.
- Li, X.-Q., D. Donnelly and T. G. Jensen, 2014 (or January 2015) *Somatic Genome Manipulation: Advances, Methods and Applications*. Springer, New York.
- Wang Y, Wang Z, Amyot L, Tian L, Xu Z, Gruber MY and Hannoufa A (2014) Ectopic expression of miR156 represses nodulation and causes morphological and developmental changes in *Lotus japonicus*". Mol Genet Genomics (in press; DOI: 10.1007/s00438-014-0931-4)