



OGIRC Newsletter

Volume 3, Issue 2

Summer 2012

Recent Events

PLANT BIOTECHNOLOGY WORKSHOP

The OGIRC was pleased to welcome members of the Department of Plant Biology from Michigan State University to Western on April 16 and 17, 2012. Dr Robin Buell, Blair Harlan and Brieanne Vaillancourt visited the facilities at Western, were introduced to representatives of our partners from AAFC, the OGGA and OMAFRA, and participated in an afternoon workshop. The event was well attended and resulted in many thoughtful questions and interesting discussions relating to the workshop presentations.

Dr Dan Brown, OGIRC / Agriculture & Agri-Food Canada (via Skype)
Germplasm evaluation and improvement of NA ginseng

Dr Di Wu, OGIRC / Agriculture & Agri-Food Canada
The transcriptome of NA ginseng root

Dr Robin Buell, Michigan State University
Use of transcriptomics to access recalcitrant genomes of medicinal plant species

Blair Harlan presenting for Dr Mary Hausbeck, Michigan State University
Pathogens that impact ginseng quality and yield



International
Organization for
Standardization

The group's 2nd Plenary meeting was held in Daejeon, Korea from May 21 to 24, 2012. Ed Lui serves as an expert member representing Standards Council of Canada on both; i) Working Group 1: Quality and safety of raw materials and traditional processing and ii) Working Group 2: Quality and safety of manufactured TCM products. At this time, ginseng is one of the top traditional medicines under discussion because of its significance in international trade and the potential impact on public health world-wide. Ed was invited to present an overview on cultivation and world-wide markets for American ginseng, as well as on issues relating to the quality of seeds and seedlings. The WG-1 members noted the research data on American ginseng was limited, and that international joint efforts in research are needed for further quality standards development. Ed is taking a lead role in bringing teams from Canada, USA, China and Australia together to address this deficiency.

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Inserts

Natural Bioactives Conference
Presentations & Publications

News & Announcements

Awards & Recognition

Kelly Lovell, Dr Lui's Scholar Elect student, was recently named as one of Canada's Top 20 Under 20 for her work inspiring youth and creating change in communities internationally. Kelly organized the Passion for Progress campaign in Kitchener/Waterloo, and also founded the Dollars for Dreams campaign which encouraged Canadian youth to raise funds for the Save the Children's educational fund.

Dr Morris Karmazyn received a five-year CHIR Operating Grant to continue his research with ginseng in a project entitled – "Treatment with ginseng as an effective cardiac

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antihypertrophic and antiremodelling strategy.”

Congratulations go out to the following trainees who received presentation awards at the *Cultivating Natural Bioactives for Health & Disease* conference in July.

Oral Presentation Awards

- 1st place tie - Megan Migchels (Western U) & Cheryl Lui (McMaster U)
- 2nd place - Al Hassan Kyakulaga (Makerere U, Kampala, Uganda)
- 3rd place - Di Wu (AAFC)



Oral Presentation Awards winners

Poster Presentation Awards

- 1st place - Adrianna Cimo (Brescia UC)
- 2nd place - Ganjian Zhao (Western U)
- 3rd place tie - Subhrojit Sen (Western U), Hoda Moazzen(Western U), Farida Akhter (Western U)



Poster Presentation Awards winners

OGIRC IN THE NEWS

In May 2012, CBC's *The National* presented a feature interview with Dr Praveen Saxena from the Plant Biotechnology PTG at the University of Guelph. The feature focused on Dr Saxena's work cloning elm trees which are resistant to Dutch Elm disease.



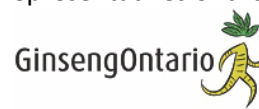
Ontario's *The Grower* magazine published an article in the August edition relating to the OGGA's efforts to promote Ontario ginseng, and presented photos and a brief outline of the *Cultivating Natural Bioactives* conference delegates who had joined the pre-conference tour.

A team from Great Mountain Ginseng came to Western in May to prepare a documentary on ginseng.

The SBS-TV documentary that investigated approaches used in different countries to bring ginseng to local and global consumers has been produced. Drs Lui, Feng, Karmazyn and Noble were highlighted in the documentary that was filmed at Western last fall. The DVD is available in the OGIRC office.

INTERNATIONAL RELATIONS

In the early spring, a group of Western University officials visited a number of academic institutions in China as part of an international relations tour. The OGIRC provided our delegation with Ontario ginseng gift packages, compliments of OGGA, including an insert on the OGIRC, to present as gifts to representatives of the host institutions.



A group of high school principals from China visited Western in July 2012, and the OGIRC provided project details and samples of Ontario ginseng tea for the group.

CONFERENCE NEWS

American Society of Mass Spectrometry (ASMS) in Vancouver, May 14-16. Ed Lui, Carmai Seto and the AB SCIEX group were selected for an oral presentation at a TCM session, entitled: *A Pharmacokinetic and Pharmacodynamic Study of American Ginseng on Reproductive Function*.

Association for Research in Vision & Ophthalmology (ARVO), Fort Lauderdale, May 6-10. Dr John Trevithick presented a poster at this international meeting known to be the world's largest gathering of international eye and vision researchers.

Canadian Nutrition Society Annual Meeting, Vancouver, May 23-25. Sarah Wilson, Dr Mutch's student from the University of Guelph, attended this meeting and presented a poster at this national conference.

Cultivating Natural Bioactives for Health & Disease
The OGIRC hosted an international conference in London, Ontario, from July 9 to 11, 2012. The conference focused on the cultivation and development of functional foods, therapeutics and health supplements from ginseng, Chinese medicines and other medicinal herbs. Discovery and cutting edge technologies as well as strategies for standardization, globalization and safety of natural bioactives were discussed. See the insert for more details on the conference.

Consortium for the Globalization of Chinese Medicine (CGCM), Macau, Aug 19-21. Ed Lui was invited to chair a session on Herbal Resources I (Cultivation and herbal quality) in which ginseng and ISO standards were part of the discussion. In addition, Ed presented the annual report on behalf of the Canada Consortia (Western, McMaster University, U Toronto, CICMR, and OGIRC); it was noted that the OGIRC was the most productive member.

- **Next year's meeting:** Graz, Austria, tentatively scheduled some time during the last two weeks of August - be prepared to attend! In 2015, it will be held in Canada, most likely at Western.

Natural Health Products Research Society (NHPRS), Kelowna, May 22-24. Ed Lui was invited to deliver the opening plenary entitled: "A journey with ginseng to discover, innovate and to inspire". Dr John Arnason received a merit award from the Society for his contribution. Mehrnaz Salarian and Sahar Samimi from Dr Charpentier's group also presented their work on advanced

processing at the conference.

- **Next year's meeting:** Windsor, Ontario the first week of May. There will be two new sessions: Emerging new technology in NHPs; and, Production and Processing. *Be prepared to attend!*

Ontario Ginseng Growers Association held their 10th Annual General Meeting in Delhi, Ontario on March 27, 2012. The meeting featured a number of guest speakers of interest to the growers including OGIRC investigators Ed Lui, "*Cultivating natural bioactives from ginseng: advances in quality analysis and understanding its health benefits*" and Dan Brown, "*Agriculture and Biotechnology Progress Toward Cultivar Development*".

OGIRC FACEBOOK & WEBSITE

If you've not yet had a chance to visit our Facebook page, please take a moment to look us up, and "Like" the page at <http://www.facebook.com/OntarioGinsengInnovationAndResearchConsortium>.



The OGIRC website now has a new *Publications* page showcasing group members' publications. Let us know if you have publications that should be added to the page.

What's up with us!

A warm welcome is extended to:

Antoine Bily, Technical Director of Naturex Inc based in New Jersey, is the OGIRC's new contact relating to the technical work on extracts as part of our collaborative arrangement with Naturex.

Dr David Cechetto is joining the OGIRC and collaborating with Dr Lui on a project to measure the impact of Ontario ginseng on stroke rehabilitation.

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Al Hassan Kyakulaga is a visiting graduate student from Makerere University in Uganda, and will be working with Dr Lui until the end of December 2012 on his research project - Immunomodulation of ginseng and medicinal mushroom on cancer therapy.

Marjolaine Meyer, Scientific Coordinator, Strategic Research Programs, at Naturex Inc in Spain will be the Naturex liaison with the OGIRC for the remainder of the project on administrative, financial and governance issues.

Amanda Penley and Andrea Phillips, students at London's Medix School, worked with Dr Ciriello as part of their co-op program over the summer assisting with the research into the effects of ginseng on metabolic syndrome.

Following their AGM, OGGA announced a few changes in their Board of Directors. Ken Van Torre has accepted the Chair position while Doug Bradley remains as a director on the board. Carl Atkinson has taken on responsibilities as Vice-Chair with Remi Van De Slyke heading up the Research Committee.

Congratulations to:

Danyka Belanger, from the lab of Drs Feyles and Watson in the Safety PTG, successfully completed her MSc program in June. In September, Danyka will be in Toronto starting a Dentistry program.

Pearl Chung, Dr Lui's 480 student, successfully completed her undergraduate program in April. Pearl will be attending law school in September.

Adrianna Cimo successfully completed her MSc program in August. Adrianna was a graduate student of Dr Sharareh Hekmat, a collaborator from Brescia's Food & Nutrition Program. Adrianna is now in Toronto to begin training as a Registered Dietician.

Holly Lemmon, from Dr Madrenas' Pre-Clinical PTG, successfully completed her MSc program in February. Holly is currently working as EMD Millipore's south-western account executive.

Megan Migchels, from Dr Ciriello's Pre-Clinical PTG, successfully completed her MSc program in August. Megan will be living in Toronto, and looking for work in a related field.

Subhrojit Sen, Dr Chakrabarti's PDF, has recently accepted a position at Wayne State University in Michigan.

Sarah Wilson, a trainee of Dr David Mutch, has completed her undergraduate degree at the University of Guelph, and will be starting her program at the Canadian College of Naturopathic Medicine in September.

Farewell to:

Brianna Kim, who worked in the OGIRC Central office from September 2011 to July 2012. Brianna was accepted to the MBA program at Wilfrid Laurier University.

Fatemeh Amirahmadi, a postdoctoral fellow, working with Dr Feng on cardioprotective effects of ginseng in mice.

All of our summer lab volunteers and work study students – Sarah Asmail, Maha Hoseh, Kourosh Karimi-Shahri, Diliiana Stratkova and Bryan Wong. Thanks for all your help!

Questions or Comments?



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