

THE BUZZ



News about the Ontario Ministry of Agriculture, Food and Rural Affairs – University of Guelph Partnership

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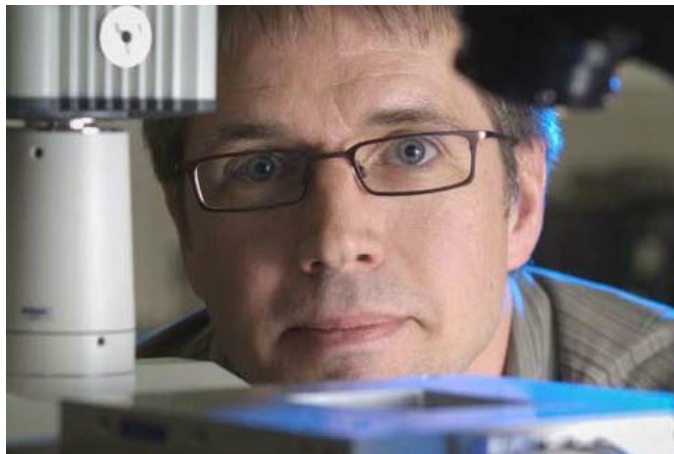
IN THE NEWS

Welcome Readers!

We are proud to share the latest happenings in Partnership-funded research and innovation, and hope that as the summer winds down, you can enjoy this issue of The Buzz in cool comfort. Be sure to take a peek at Upcoming Events at the end of this issue to learn more about Partnership programs and research.

RESEARCH and INNOVATION

Extraordinary corn sugar particles discovered at the U of G



Professor John Dutcher (Photo: Martin Schwalbe)

University of Guelph physics Prof. [John Dutcher](#) is generating revolutionary new sugar polymers (sugar molecules bonded together) from Ontario corn. The unique properties of these particles make them a promising platform technology with countless applications. For example, the particles' ability to retain moisture makes them a good candidate for use in cosmetics and personal care products, which is a \$300 billion/year industry. Since they are made from natural sugars, the particles could also replace synthetic, potentially toxic particles used in biomedical applications. Additionally, their efficient light scattering properties

make them attractive candidates for both paints and cosmetics, potentially replacing petroleum-based components currently found in these products. Dutcher and his team have called these [PHYTOSPHERIX™](#) polysaccharide particles. A start-up company, Mirexus Biotechnologies Inc., was created to guide their marketing and production. Funding for this research was provided by the OMAFRA-U of G Partnership.

Personalizing on-farm green technology

Green technologies such as solar panels or anaerobic digesters sound good on paper, but do they make economic sense for Ontario farms? School of Engineering Prof. [Bill Van Heyst](#), and graduate students Stephanie Shaw and Dan Roth have partnered with the Ontario Ministry of Agriculture, Food and Rural Affairs and the Poultry Industry Council to create a free, online support tool that will help make the transition to environmentally friendly technologies as efficient and cost effective as possible. The tool, called the Complementary Energy Decision Support Tool (CEDST) will provide easy access to information about green technologies available to farmers and their associated costs. The tool will ultimately help farmers make decisions about which technologies would best suit their individual farms. Funding for this research was provided by the OMAFRA-U of G Partnership.

AGRI-FOOD AND RURAL LINK

Fostering food hubs for the future

Food hubs are collaborative partnerships between community groups, government ministries, producers, retailers and residents that work to strengthen a community's food infrastructure. They currently exist in Toronto, Guelph, London and the Waterloo region. The growing interest in the local food movement and consumers' desire for more sustainable food systems means more community-based food hubs as part of Ontarians' food infrastructure. Prof. Karen Landman from the School of Environmental Design and Rural Development is working with a province-wide team to create a toolkit that will assist communities in building their own successful food hubs. Landman hopes that her research and toolkit will reflect the best practices to help guide other communities towards establishing food-hub infrastructure. Landman's research is funded by the OMAFRA-U of G Partnership, as well as the Social Sciences and Humanities Research Council.



Professor Karen Landman and her research team are hoping to make "buying local" a reality for more communities.

CATALYST CENTRE (BUSINESS DEVELOPMENT)

Opportunities for research and transfer of U of G innovations

This past June and July, representatives from U of G's [Catalyst Centre](#) (formerly the Business Development Office) attended both the [BIO International Convention for Biotechnology](#) and the [Institute of Food Technologists](#) (IFT) conference to promote University of Guelph innovations and research collaboration opportunities. Dr. David Hobson, Technology Transfer Manager for the [Ontario Veterinary College](#) at the Catalyst Centre, was invited to participate in a panel discussion while at BIO. The conferences brought together leading innovators and companies in bio- and food technology and were an excellent venue to market U of G inventions and research innovations. Notable connections were made with leaders from [Monsanto](#), [Mendel Biotechnology](#), [Boehringer Ingelheim](#), [Novartis](#), [Merck](#), [Baxter](#) and [GlaxoSmithKline](#) (at BIO) and Bunge, [Tate & Lyle](#), Thomas, [DSM](#) and [Richardson Oilseed Ltd](#) (at IFT). There was no shortage of interest in the work that is done at the University of Guelph and the Technology Transfer and Industry Liaison teams at the Catalyst Centre are working hard to foster partnerships and initiate collaborative research to benefit society.



INFRASTRUCTURE

Livestock Research and Innovation Centre at Elora

With funding in place from OMAFRA / Agricultural Research Institute of Ontario (ARIO) and the dairy industry, progress on the new Dairy Research Centre is moving forward. It will be located on the current site of the Elora Research Station and will replace existing dairy research facilities at the Elora and Ponsonby research stations. The new facility will provide for expanded research capacity and is designed for the highest standards of animal care, operational efficiency and research flexibility. Detailed design and construction documentation are expected to be complete early in 2013, with construction itself scheduled to begin in spring, 2013.



Conceptual rendering of the new U of G Elora Dairy Research Centre. View towards Metabolic Wing and Farm Work Centre.

RESEARCH STATIONS

The art and science of green roofs



Green roof experiments at Vineland Research Station. Photo submitted by Kathryn Goodish.

Vineland research scientist, Dr. Rumen Conev, is in the second year of a three-year trial in which he hopes to identify specific types of ornamental plants for green roofs. Conev hopes to broaden the array of ornamental plants available to growers and green roof professionals that can survive the extremes of temperature and precipitation inherent to this area. In the near future, Conev is excited to expand his research team to include Dr. Youbin Zheng, the cross-appointed Chair in Environmental Horticulture at Vineland / University of Guelph. Dr. Zheng's experience in green roof technology will help Conev and his team implement intelligent irrigation systems on green roofs. More information on Conev, Zheng, and research on green roofs at

Vineland can be found in [The Innovation Report 2012](http://archive.constantcontact.com/fs022/1102418459743/archive/1110569671424.html).

ANIMAL HEALTH LABORATORY

Keeping an eye on anti-microbial resistance in livestock

Ontario producers and veterinarians are keenly aware of the risks posed by pathogens that have developed resistance to antibiotics (called anti-microbial resistance, or AMR). These can affect the health of both individual animals and entire herds. In an effort to better understand the influential factors, Dr. David Pearl and his team at the Animal Health Laboratory have been reviewing the incidences of AMR over time and across locations. The development of this surveillance system will provide Ontario veterinarians and other stakeholders with regularly updated information concerning changes in AMR patterns. It will also be useful in developing evidence-based guidelines on antimicrobial use, and for evaluation of methods to reduce AMR in bacterial populations. Funding for this work is provided by the OMAFRA-U of G Partnership.

STAFF AND STUDENT NEWS

Guelph grad and SPARK writer on assignment in Vietnam



Guelph grad Joey Sabljic on assignment in Vietnam. Photo courtesy of Joey Sabljic.

Recent English Honours graduate Joey Sabljic, who also works as a writer for SPARK (Students Promoting Awareness of Research Knowledge), participated in a communications initiative in Vietnam. The project on beekeeping development and participatory training was jointly funded by the Canadian International Development Agency (CIDA) and the University Partnerships in Cooperation and Development. For the past six years, researchers from both the University of Guelph and Vietnam have been providing local villagers and farmers in rural Vietnam with practical bee-keeping advice and assistance. Together, they have advised farmers on the skills needed to keep and breed bees, sell and market honey, and transfer their knowledge to other fledgling beekeepers in surrounding villages. Sabljic is currently producing a short, 30-minute documentary based on his experiences abroad, a preview can be found [here](#).

Highly Qualified Personnel (HQP) grad begins bio-products career

Sara Bonham, a graduate of the [Highly Qualified Personnel](#) (HQP) scholarship program offered through the OMAFRA-U of G Partnership, now works as a research and development associate for Polymer Specialties International (PSA) in Newmarket, Ontario. A unique combination of research and practical job experience improves HQP students' market readiness and benefits OMAFRA's research interests. In her new position, Bonham hopes to use her Masters in biological engineering to continue developing sustainable bio-materials for both industrial partners and private consumers.

Honours for U of G veterinarian, Dr. Todd Duffield

Dr. Todd Duffield, Acting Research Coordinator for the University of Guelph's Dairy Research Program and Professor in the Department of Population Medicine at the Ontario Veterinary College, was recently recognized with a [Merck Veterinary Award](#). The award, which was presented during the annual Canadian Veterinary Medical Association Awards this past July in Montreal, is given to vets who make contributions to the veterinary profession in large animals and to animal health and welfare.



Dr. Todd

New home for U of G Research Communications

As part of the Office of Research strategic reorganization, Research Communications has moved into UC 451 and 455 (the old Steelworks' office, just across the hall from Office of Research headquarters). Email and phone numbers remain the same: Owen Roberts, Director (owen@uoguelph.ca, x 58278), Liz Snyder, Manager (lsnyder@uoguelph.ca, x 53781) and SPARK (spark@uoguelph.ca, x 53511). We'll be having an opening event in September. Meanwhile, please drop by and say hello.

Look for the next issue of The Buzz in September 2012!

COMING EVENTS

The OMAFRA-U of G Partnership is proud to announce the launch of its new user-friendly website on September 14th. Join us in the Atrium of 1 Stone Road, Guelph, between 12 and 1 pm for a demonstration of some key website features. Refreshments provided.

The next News @ (close to) Noon will take place on September 19 in the Conference Centre at 1 Stone Road. Dr. Michael Brownridge from the Vineland Research & Innovation Centre will provide an international perspective on cultivating crops from around the world. No registration is necessary. Also available as webcast. Click [here](#) for more information.

"IP as a career path for Software Engineers" will be held on September 20. This session will help guide personal career growth in the IP arena by identifying pathways, resources and educational course options that a software engineer can target to launch his/her career in this area. Stanley Khaing, a computer science graduate, will speak and engage students attending computer science and engineering courses. For more information, contact the Catalyst Centre: catalystcentre@uoguelph.ca, 519-824-4120 x 58878.

The new 2012-2013 OMAFRA-U of G Partnership Yearbook will be released early this fall.

Food for Health research funded under the OMAFRA-U of G Partnership will be showcased in this year's Journey to Your Good Health at the [Royal Agricultural Winter Fair](#) in November 2012.

About The Buzz

The Buzz is the electronic community news vehicle for the OMAFRA-University of Guelph Partnership. Click [here](#) to view previous issues of the Buzz.

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Find out more about the OMAFRA-U of G Partnership at:

http://uoguelph.ca/omafra_partnership
<http://www.omafra.gov.on.ca/english/about/uofg/>

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