

Speakers

Keynote and Invited Speakers

A New Era of Cannabis Science



Dr. Jonathan Page is the co-founder and CEO of Anandia, a leading cannabis testing and genetics company based in Vancouver, and an Adjunct Professor at UBC. He has spent his scientific career deciphering the genetic and biochemical secrets of medicinal plants, including the production of cannabinoids in cannabis. In 2010, Jonathan co-led the Canadian team that reported the first sequence of the cannabis genome. He lectures widely on cannabis science and actively contributes to policy

discussions regarding cannabis legalization. Jonathan founded Anandia to build a strong scientific foundation for cannabis, and to create and commercialize the next generation of cannabis varieties.

Affiliation: Co-founder & CEO Anandi

Ten Agricultural Priorities for Drug Cannabis

Dr. Ernest Small is a principal scientist with Agriculture Canada and an adjunct professor at Ryerson University. He specialises on the evolution and classification of economically important plants, dealing particularly with food, forage, biodiversity, and medicinal species. He has authored about 400 journal publications and 15 books, most recently the 600-page volume Cannabis: A Complete Guide. Dr. Small selected the standard strain of marijuana that was officially employed in Canada for 13 years following the legalization of medical



marijuana in 2001, and used to treat over 100,000 patients. His classification of Cannabis on the basis of THC content has been adopted by numerous countries as the foundation of legislation governing hemp and marijuana cultivation. He has received a dozen scientific society and book awards, and is a member of the Order of Canada, the country's highest honour.

Propagating Elite Cannabis: A Current Scenario



Dr. Hemant Lata is working as a Senior Research Scientist, at National Center for Natural Products Research (NCNPR), School of Pharmacy, The University of Mississippi. For more than the last twelve years, Dr. Lata has been working on screening, conservation, micropropagation and multiplication of different varieties of Cannabis sativa. She has more than sixty publications and two edited books including “Cannabis sativa L.- Botany and Biotechnology - Springer International” among her

credits. Dr. Lata's research interests include – cell, tissue and organ culture of medicinally important plants; cryopreservation; alternative techniques for short and long term storage of plant germplasm and evaluation of micropropagated plants for secondary metabolites and genetic stability

Utilization of RNAi and Sterile Insect Technique for Management of Insect Pests in Vegetable Production Systems.



Dr. Cynthia Scott-Dupree is a Professor and Bayer CropScience Chair in Sustainable Pest Management (2014-2019) in the School of Environmental Sciences - University of Guelph and has been a faculty member there since 1986. She received her Master of Pest Management (1983) and Ph.D. (1986) from Simon Fraser University. Over the years she has supervised 44 graduate students and 4 PDFs, edited 3 books and 5 book chapters, and published 79 refereed scientific papers, 37 refereed proceedings

papers, 80 technical reports and 30 extension publications.

Her current research interests include sustainable management of insect crop pests using environmentally compatible control methods including conservation biological control and sterile insect release; management of invasive alien insect species; impact of agro-ecosystems on beneficial insects such as honey bees, non-Apis bees (i.e., bumble bees and leafcutter bees) and natural enemies; and development of standardized pesticide risk assessment methods for non-Apis bees. She is presently involved with risk assessment method development for studying the impact of pesticides in agroecosystems on bumble bees and leafcutter bees in lab and semi-field situations; survey and development of IPM strategies for brown marmorated stink bug and ambrosia beetles – invasive insect pests in Ontario; and IPM for carrot weevil and carrot rust fly in Ontario. Since the early 90's, she has been involved with the supervision of large-scale GLP and other field studies in Ontario – looking at the impact of insecticides on honey bees and bumble bees.

Born and raised in western Canada (Brandon, Manitoba), Cynthia became acquainted with apiculture and agriculture through family beekeeping and farming operations. She is keenly aware of the importance of IPM, entomology/apiculture, and agriculture to the Canadian economy and endeavors to relay this to others through her research, teaching and outreach activity.

Towards a comprehensive understanding of apple tree architecture

Dr. Kenong Xu received his BS, MS and PhD degrees from Anhui Agricultural University, Huazhong Agricultural University, and University of California Davis, respectively. He currently is an Associate Professor of Tree Fruit Genomics at Cornell University. His



research program focuses on identification of genes and/or gene-networks controlling apple traits of economic importance. Dr. Xu's research work in understanding apple fruit acidity was recognized with a (US) Presidential Early Career Award for Scientists and Engineers. His early accomplishments in uncovering the genetic and molecular mechanisms of rice submergence tolerance were awarded with a Science Award from the Consultative Group on International Agricultural Research (CGIAR) and an

Economic Development Award from The Tech Awards.

Nutraceuticals and functional foods from cool climate fruits



Dr. Vasantha Rupasinghe is a Professor and Killam Chair of Functional Foods and Nutraceuticals at Dalhousie University, Nova Scotia, Canada. Dr. Rupasinghe's major research contributions include elucidating the mechanism of actions of plant flavonoids in their antiproliferative action against hepatocellular carcinoma and breast cancer; exploring the neuroprotective and cardioprotective properties of flavonoids; polyphenols-dependent antioxidant and anti-inflammatory activities of haskap

anthocyanins; synthesizing novel acylated flavonoids and examining their anti-cancer, anti-inflammatory, cytoprotective and hypolipidemic properties; and identifying unique phytochemicals that can be used as anti-infective, anti-biofilm and anti-adhesive agents against *Streptococcus pyogenes*. He has published over 160 peer-reviewed articles and trained over 100 highly qualified personnel. He is a Fellow of the Canadian Institute of Food Science and Technology (CIFST). Email: vrupasinghe@dal.ca

Cold Hardiness of Grapevines: Recent Advances in Improvement and Management



Dr. Imed Dami, Professor in the Department of Horticulture and Crop Science and State Viticulture Specialist at The Ohio State University with research and extension responsibilities in viticulture. His research interests include cold hardiness of grapevines and developing methods of cold protection; improving fruit and wine quality through cultural practices; and germplasm evaluation to match new varieties with Ohio grape growing regions. Dr. Dami has participated in research assignments

and educational tours in Canada, Chile, China, Italy, Tunisia, and USA (California), and has been invited to speak nationally and internationally including Argentina, Australia, Canada, Chile, China, France, Italy, New Zealand, and Tunisia. Dr. Dami was the editor and lead-author of an Extension book titled “Midwest Grape Production Guide”, and co-authored “Winter Injury to Grapevines and Methods of Protection” (Extension Bulletin), “Foliar Application of Abscisic Acid Increases Freezing Tolerance of Field-Grown *Vitis vinifera* Cabernet franc Grapevines” (Scientific Journal article), “Grapevine Canopy Management” (Educational Video), all were awarded best publications by the American Society of Horticultural Sciences (ASHS) and the American Society for Enology and Viticulture (ASEV). Dr. Dami served as Chair and Board Director of the ASEV-Eastern Section (ASEV-ES), and currently serves on the national ASEV, and as academic advisor to Ohio grape and wine industry organization for the past 15 years.

Physiogenomic Characterization of a Ripening Anomaly in *Pyrus communis*: Discovery and Application

Dr. Amit Dhingra is a Professor of Genomics and Biotechnology in the Department of Horticulture at Washington State University. He also serves as the Chair of the Entrepreneurial Faculty Ambassadors Program at WSU. He worked for his Ph.D. at the University of Delhi, India and Rutgers University, New Jersey supported by fellowships from the University Grants Commission and The Rockefeller Foundation, USA,



respectively. After his post-doctoral training at Rutgers, University of Central Florida and University of Florida, he joined Washington State University in 2006 as a tenure-track Assistant Professor.

The Dhingra physiogenomics program integrates genomics and time-course transcriptomics approaches with well-defined physiological or developmental models to identify species-specific genes and genetic networks that control important

biological processes in plants. This information is translated to crop improvement via changes in cultural practices, transgenic, genome editing, and fast track breeding approaches. He has trained 32 graduate students and post-doctoral scientists and over a hundred undergraduate students. Recently, he was awarded the 2017 Council on Undergraduate Research National Biology Mentor award. He has published more than 50 papers in high impact refereed journals and has been awarded two US and one NZ patents. The research from his program has been featured in the New York Times, The Atlantic, BBC, The Times of London and several other news outlets. Additional information about his research activities at WSU can be obtained by visiting

<https://genomics.wsu.edu/category/news/>
(<https://genomics.wsu.edu/category/news/>)

Amit is the Founder and Chief Science Officer of Phytelligence Inc. (**[www.Phytelligence.com](http://www.phytelligence.com/)** (<http://www.phytelligence.com/>)), first Agtech spin off from College of Agriculture, Human and Natural Resource Sciences at Washington State University. Phytelligence is revolutionizing the way food crops are grown by developing and commercializing innovative solutions for growers. Phytelligence is headquartered in Seattle with locations in Pullman, Washington and Portland, Oregon. Phytelligence has over 140 employees and is growing geographically with operations in Florida and India

Avocado bioactives in cancer chemotherapy



Dr. Paul Spagnuolo is an Associate Professor & Research Program Director: Products and Value Chains, OMAFRA/UG Partnership at the Department of Food Science, University of Guelph. His research focuses on the development of novel therapeutics for the treatment of acute myeloid leukemia (AML) with specific emphasis on nutraceuticals (i.e., food-derived bioactive compounds). His lab has discovered 4 novel anti-cancer agents, filed 3 patents and has initiated a Phase I Clinical Trial. He is a

member of the Ontario Stem Cell Initiative and the Stem Cell Network and he also sits on the Board of Directors for the Natural Health Products Research Society of Canada.

Haskap Workshop



Dr. Bob Bors has been a professor in the Plant Sci. Dept. at the University of Saskatchewan since 1999. He teaches classes on Fruit Science, Plant Propagation, Greenhouse Management, Biotechnology and Introduction to Horticulture. He runs the University of Saskatchewan Fruit Program which is breeding many hardy fruits and is well known for work on Haskap, Sour Cherries and 'Under the Sea' coleus. His haskap breeding program is considered to be among the best worldwide and has

released 10 varieties. His program's website is www.fruit.usask.ca
(<http://www.fruit.usask.ca/>)

Panelist, Vegetable Symposium



Brett Schuyler is an active member in the family farm. Schuyler Farms is located north of Lake Erie in the diverse cropping area of Norfolk County. Their family goal is to be a sustainable farm business. They have taken a systems approach County farms where their family grows apples, sour cherries, vegetables, grains and oilseeds and raise sheep and lambs. Their farming philosophy is to reduce tillage and inputs without sacrificing yields, use green bin and leaf litter compost, and strive to adopt better farming practices,

such as managed grazing, whenever feasible.

Mapping their farm by soil type has given them a tool to understand how to use precision agriculture to guide their crop rotations and nutrient applications. Brett feels that if everyone had access to such detailed soil maps, it would really change the way farming is done.

Dr Laura L. Van Eerd

Laura grew up on a cash crop and finishing hog farm in near Ridgetown, Ontario. She earned a triple crown (BSc, MSc and PhD) at the University of Guelph and is still there at Ridgetown Campus as an Associate Professor in the School of Environmental Sciences. The goal of her internationally-recognized research program is understanding and mitigating anthropogenic impacts on agro-ecosystems. With a focus on biogeochemical cycling of C and N, Prof. Van Eerd's research objectives are (i) enhancing nitrogen use efficiency while mitigating edge-of-field losses and (ii) elucidating the role of cover crops and other sustainable management practices on soil health attributes and their link to



primary productivity. She is an accomplished researcher and speaker with 45 peer-reviewed journal articles and over 200 national and international conference presentations.

Cannabinoids and the Brain



Linda A. Parker, Ph.D. is a Tier 1 Canada Research Chair in Behavioural Neuroscience at the University of Guelph, Guelph, Ontario. Her innovative approaches in establishing a rodent model of nausea and implementing a shrew model of vomiting have contributed to the discovery that the endocannabinoid system is critical for the regulation of these distressing symptoms. Her investigations of the effects of manipulations of the endocannabinoid system and

cannabinoids on nausea and on brain function have contributed to our understanding of risks/benefits of cannabinoids, potentially leading to new treatments.

Linda Parker has published over 200 papers in high impact peer-reviewed journals, including *Journal of Neuroscience*, *Annual Review of Psychology*, *Neuropsychopharmacology*, *British Journal of Pharmacology* and *Psychopharmacology*. She was the 2016 recipient of the Lifetime Achievement award from the International Cannabinoid Research Society received in Bukovina Poland. She is currently president of the Canadian Consortium for Investigation of Cannabinoids (CCIC). She has recently written a scholarly book, “Cannabinoids and the Brain”, published in 2017 by MIT press. Her research is currently funded by operating grants from NSERC and CIHR, as well as a Collaborative Research and Development Grant from NSERC with an industrial partner. She is currently on the grant selection panels of both NSERC and CIHR.

