



The Convergent Innovation Webinar Series:

Inventing "One-World" Solutions for Lifelong Wellness and Sustainable Economic Growth

The Periodic Table of Foods Initiative (PTFI):

Next-Generation Tools for Innovation and System Level Transformation Toward Health and Economic Convergence



Professor Bruce German researches the mechanisms by which components in the diet impact on human health. He develops ways to assess health and metabolism in response to foods. Milk is the model he uses as a genetic blueprint for foods to support the growth, development and protection of infants. Lactation, as a biological process evolves under the selective pressure as the sole source of nourishment for growing mammals. This evolutionary logic is the basis of research to discover physical, functional and nutritional properties of milk components and to apply these properties as principles to the broader issues of agriculture, diet and health.

April 27, 2022

11:00 am EST

(2 hrs in length)

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Chair: Laurette Dubé (Scientific Director of MCCHE)

Co-Chair & Moderator: John G. Keogh (Professor of Practice, MCCHE; Founder, Shantalla Inc.)

ABSTRACT: The world is facing challenges to the agriculture and food enterprise: nourishment, environmental destruction and economic disparity. The food that people choose to eat is compromising their health and bankrupting health care systems. The agriculture that produces food is destructive to land, water and air quality world wide, has removed most of the planet’s arable land from the wild, over harvested marine ecosystems to the point of ecological collapse and is a direct contributor to green house gases. The economic value of food returning to the farmers who grow it and the workers who process it is insufficient to maintain their financial stability, as everyone increasingly competes to produce the cheapest commodities in the marketplace. With such challenges, it is perplexing that we still do not know what food is. Food composition remains a black box with all but the most common of foods and essential of nutrients unknown. It is now time to solve this problem and bring the modern tools of analytical chemistry, database structure and computational technologies to the global food supply. The Periodic Table of Foods Initiative (PTFI) is bringing together scientific experts to build an unprecedented knowledge resource for the world: the detailed composition of what we eat. Food can then become a knowledge based enterprise and unleash modern data technologies to solve the urgent challenges of nourishment and environmental stewardship. The goals are compelling: bring unprecedented health to the global population through food and bring unprecedented prosperity to those who produce it.

PANEL DISCUSSION: A panel will follow with scientists and action leaders to advance convergence science and innovation at the food, health, medicine and healthcare interfaces for addressing challenge and possibilities afforded by open-sciences in accelerating world-scale transformation toward sustainable prosperity. Discussion will also explore how digital transformation of science, business and society can accelerate the bridging of seemingly incompatible commons and value-capture logics, capabilities, processes and impacts

ABOUT THE SERIES: The **Convergent Innovation Webinar Series** features cutting edge science, technology and innovation in agriculture, food, environment, education, medicine and other domains of everyday life where grand challenges lie at the convergence of health and economics. Powered by data science, artificial intelligence, and other digital technologies, this disciplinary knowledge bridges with behavioural, social, humanities, business, economics, social, engineering, and complexity sciences to accelerate real-world solution at scale, be it in digital or physical contexts. Initiated in the agri-food domain, the series is now encompassing other grand challenges facing modern and traditional economies and societies, such as ensuring lifelong wellness and resilience at both the individual and population levels.

Global Pulse Innovation Platform:



For more information or to subscribe, contact:
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Chair: Laurette Dubé, initially trained as a nutritionist, also holds degrees in finances (MBA), marketing (MPS), and behavioral decision-making/consumer psychology (PhD). Dr. Dubé is Full Professor at the Desautels Faculty of Management, McGill University. Her research focuses on the study of affects, behavioral economics, and neurobehavioral processes underlying consumption, lifestyle, and health behavior. Her translational research examines how such knowledge can inspire effective interventions. She is also the founder and scientific director of the McGill Centre for the Convergence of Health and Economics, a unique initiative to push the boundaries of science to tackle societal and economic challenges and foster individual and collective health and wealth.



Moderator: John G. Keogh is a strategist, C-level advisor and academic researcher with 25 years of executive leadership roles as Director, VP and SVP in global Supply Chain Management, Information Technology, Technology Consulting and global Supply Chain Standards. He advises the public and private sectors worldwide and is a regular subject matter expert on TV and Radio. Mr. Keogh is managing principal at Toronto-based, niche advisory and research firm Shantalla Inc. Mr. Keogh holds a PG diploma and an MBA in Management and an MSc in Business and Management Research in transparency and trust. He is currently completing doctoral research on transparency and trust in food chains at Henley School of Business, University of Reading.

Panelists:



Shawn Brown, PhD is Vice Chancellor for Research Computing at the University of Pittsburgh and the Director of Pittsburgh Supercomputing Center at the Carnegie Mellon University/University of Pittsburgh and. Prior to his appointment, Dr. Brown served as the Associate Director of Research Software Development at the McGill Centre of Integrative Neuroscience at the McGill Neurological Institute. Dr. Brown is an expert on high - performance computing and computational simulation. He has over 25 years of experience in developing software to support the use of high-performance computing for research in areas such as chemistry, bioinformatics, and public health. his research interests are ALSO in how agent-based modeling and other computational techniques can be used to provide decision support in public health and chronic disease.



Erik Westblom is the CEO and Co-founder of Provision Analytics. Provision is a software company that enables streamlined food safety compliance. Its intuitive platform simplifies data capture in any food process, creating one central hub for audits and analytics. Since inception in 2018, Provision has been adopted by leaders in agriculture, manufacturing, and distribution across three continents. Erik founded Provision in 2018 in Copenhagen under the mentorship of food transport titan, Maersk after a 16 year career in software and finance. Provision brings together his roots in agriculture (growing up on a bison ranch in Saskatchewan, AB), his love for food and his desire to drive trust in our food chain.



As someone who loves to stay active and challenged, **Hubert Lau** has grown several successful technology companies with customers in North America, Asia and Europe. Hubert is often referred to as the “Technology Entrepreneur” and has worked with more than 1000 organizations to help them grow by leveraging technologies to maximize business opportunities. Currently, Hubert is President and CEO of TrustBIX Inc., a publicly traded company on the TSX Venture Exchange. The company provides agri-food traceability and chain of custody value solutions. TrustBIX’s goal is to create a world where we trust more, waste less and reward sustainable behaviour by addressing consumer and agri-food business demands. The proprietary platform, BIX (Business InfoXchange system), is designed to create trust without compromising privacy through innovative, blockchain-derived use of technology and data. By leveraging BIX and its unique use of incentive solutions, TrustBIX delivers independent validation of food provenance and sustainable production practices within the supply chain - Gate to Plate®.



Dr. Rickey Yada is Professor and Dean of the Faculty of Land and Food Systems at the University of British Columbia. He completed his BSc in Agriculture in 1977, his MSc in Food Science in 1980, and his PhD in Food Science in 1984, all from the University of British Columbia. Prior to UBC, Dr. Yada was at the University of Guelph where he held numerous leadership roles, including Chair, Department of Food Science, Assistant Vice President Research, and Founding Member of the Food Institute. Dr. Yada is currently the North American Editor of Trends in Food Science and Technology as well as serving on the editorial board of several journals. He is the author of over 230 refereed journal publications as well as numerous book chapters and books. His areas of research include the structure – function relationships of enzymes (aspartic proteases) and carbohydrate biochemistry as related to nutrition and food quality. Dr. Yada has an honorary DSc from the University of Guelph and was the 2019 Harraways 1867 Visiting Professor, University of Otago, New Zealand



Dr. Nitish Nag is part of the MD / PhD program at the University of California, Irvine via the NIH funded Medical Scientist Training Program. His PhD work was completed in Computer Science with the Ramesh Jain lab towards developing future health technologies, specifically around the premise of using health navigation and state estimation techniques. Nitish also currently co-leads the Zepp Health Artificial Intelligence Research Lab and coaches high-performing athletes through Alpine Athlete. Nitish holds a triple major from the University of California, Berkeley in Molecular and Cell Biochemistry, Nutritional Physiology and Metabolism and Integrative Biology. Academic awards include: Academic Highest Honors (summa cum laude), Golden Key Honors, Alumni Leadership Award for both 2010 and 2011. His research at UC Berkeley includes studying how exercise lactate metabolism with the Brooks lab, elucidating mechanisms of nutrition and aging in the Hellerstein lab, and cellular signaling in adipocytes in the Sul Lab. In addition to academic research, he worked at Bexel Pharmaceuticals and Renovel Discoveries discovering therapeutics for metabolic and cardiovascular disease.