



DOHaD Canada Digest Summer 2023

In this newsletter...

- Editor's Note
 - DOHaD Canada Annual

General Meeting on July 20,
2023 via Zoom

- DOHaD Canada Meeting 2023 - Debrief
- DOHaD World Congress Vancouver 2022 - Debrief
- Principal Investigator Profile: Dr. Anita Kozyrskyj
- Trainee Highlights - Congratulations!
- Trainee Development Committee Announcements
 - Join DOHaD Canada on Slack
 - Upcoming Trainee Seminars
- Recent Publications
 - Be Healthy in Pregnancy (BHIP) Study at McMaster University
 - More Publications

Editor's Note

Dear DOHaD Canada members,

We're pleased to present the Summer 2023 issue of DOHaD Canada Digest. For those paying attention (or who know how to search their inbox), the last DOHaD Canada Digest issue was released in the summer of 2022, and a lot has happened in the past 12 months. To boot, some important changes are coming for DOHaD Canada members,

so this issue is timely (or perhaps long overdue?).

The last newsletter was released in the run-up to the 2022 World Congress for the International DOHaD Society (Vancouver 2022). We hardly need to reiterate what a resounding success it was, but it has further cemented Canada's role as a leader in DOHaD research on the international stage. Co-chairs Dr. John Challis and Dr. Janice Bailey have provided a conference debrief, which you can read below. Not to be outdone, the 7th annual DOHaD Canada meeting was held in conjunction with the 2023 CNPRM in Montebello in May 2023. That meeting was also a notable success. Though smaller in scale, but perhaps specifically for that reason, DOHaD Canada meetings can be shaped thematically to offer unique subject matter. This year, the theme was 'environmental effects on parent and offspring outcomes' and featured a 'DOHaD advocacy and dissemination in Canada' workshop among the invited talks and trainee presentations. Co-chairs Dr. Tara Perrot and Dr. Jennifer Khoury have provided a summary below.

Looking forward, there are a number of changes coming, not least of which relates to our Society's leadership. DOHaD Canada is proud to announce our new Interim President: Dr. Anita

Kozyrskyj (University of Alberta). Dr. Kozyrskyj brings a wealth of knowledge and experience in the DOHaD field, some of which is described in her research profile in this issue. That means as well that after 7+ years as (inaugural) president, co-founder Dr. Stephen Matthews is finishing his term as head of DOHaD Canada. On stepping down, Dr. Matthews offered the following message:

“It has been a great privilege to have been President of DOHaD Canada. DOHaD Canada was founded in 2015. From small beginnings, our Society has grown to over 400 members. We have held 5 fantastic annual meetings, and in 2022, we supported the incredibly successful DOHaD World Congress in Vancouver. Our trainees are central to our Society (and our future) and have been engaged in supporting many of our key activities. I want to thank all of the committed individuals who continue to support our Society and I look forward to seeing it continue to flourish. I will continue as Past President with Dr. Anita Kozyrskyj as Interim President, and look forward to the election of a new DOHaD Canada President in 2024.”

Dr. Matthews will be recognized for his service to DOHaD Canada in due course. But his efforts to promote DOHaD research will continue unabated.

As most of you know, Dr. Matthews is currently President of the Society of Reproductive Investigation (SRI), and in that role is busy organizing the 71st SRI Annual Scientific Meeting, which will be held in Vancouver, March 12-16, 2024. The theme is “Supporting Healthy Lifecourse Trajectories”, which is of course highly relevant to our members, so make plans to attend what will no doubt be an exciting and engaging meeting.

Last and certainly not least, the International DOHaD Society has made some notable changes in the past year which include, among other things, [new branding and an overhauled website](#). These changes reflect, in part, a new strategy to promote engagement and improve communication among members. In a similar vein, changes to the membership structure of the International DOHaD Society as well as its regional societies (which includes DOHaD Canada) are on the horizon; more details will be provided at the upcoming DOHaD Canada Annual General Meeting, which is open to all, so please join us on July 20, 2023 at 12:00-1:00 pm EST (zoom details below).

The Engagement, Communication, and Outreach (ECO) Committee
DOHaD Canada

DOHaD Canada Annual General Meeting on July 20, 2023 via Zoom

Topic: DOHaD Canada AGM 2023

Time: Jul 20, 2023 12:00 PM Eastern
Time (US and Canada)

Join Zoom Meeting

[https://mshri.zoom.us/j/82417949902?
pwd=WGIUc0JDUEVORUJXUTU2bXVQ
M0RYZz09](https://mshri.zoom.us/j/82417949902?pwd=WGIUc0JDUEVORUJXUTU2bXVQM0RYZz09)

Meeting ID: 824 1794 9902

Passcode: 678534

One tap mobile

+1 360 209 5623 US

+1 386 347 5053 US

+1 587 328 1099 Canada

+1 647 374 4685 Canada

+1 647 558 0588 Canada

+1 778 907 2071 Canada

Meeting ID: 824 1794 9902

Find your local number:

<https://mshri.zoom.us/u/kbkSwVBMh>

DOHaD Canada Meeting 2023 Debrief



The 5th Annual Meeting of DOHaD Canada, co-chaired by Drs. Jennifer Khoury (Mount Saint Vincent University) and Tara Perrot (Dalhousie University), took place in May at the Fairmont Le Chateau in Montebello, Quebec. The program focused on environmental effects on parents and offspring, with a particular focus on environmental toxicants, diet/nutrition, and early life environment. We are happy to report that the event was a great success with 93 in attendance, including 57 trainees and 36 faculty members from across Canada and the world. Highlights include a keynote address by Dr. Amanda Kentner (Director of the ENRICHED Neurodevelopmental Brain & Behavior Laboratory at the Massachusetts College of Pharmacy and Health Sciences) on the importance of enriched early life environments and a special panel on DOHaD advocacy and bridging the gap between research and practical application, led by Dr. Melanie Barwick (University of Toronto) and Dr. Deborah Da Costa (McGill). In recognition of exceptional young talent,

several trainee awards were presented at the conference; Best Flash Talk went to Bona Kim, Best Oral Presentation was awarded to Sawarya Owais and Best Poster Presentations went to Antonio Rossi (1st Place) and Elizabeth Miles (2nd Place).

Overall, the 5th Annual Meeting of DOHaD Canada was a great success, bringing together brilliant minds, groundbreaking research, and a shared commitment to improving the health and well-being of future generations. We eagerly look forward to the continued growth and advancements in the field of Developmental Origins of Health and Disease.

DOHaD World Congress 2022

Debrief



Thanks to DOHaD Canada, with the leadership of Stephen Matthews (Toronto) President, for their contributions to ensuring that the 2022 World Congress, held in Vancouver in August 2022, was a smashing success.

Co-chairs John Challis and Janice Bailey salute the entire organising team for not only putting on an exceptional Congress full of science and networking, but also for persevering through the nearly impossible task of organising a Congress during the last 2 years of a global pandemic. It was an incredibly stressful time not just for the world, but also for the Organising Committee that had to first postpone the initial Congress, and then work very hard to bring us all together face-to-face! Thanks to Kristin Connor (Ottawa) Communications Chair for patiently ensuring that the congress website and social media kept the international community up to date!

The Congress was officially kicked off on October 12 and 13, 2021 with a Satellite Meeting on Domestic Animal DOHaD & Epigenetics held virtually and organised by Marc-Andre Sirard (Laval University, Quebec). Featuring cutting edge research from all over the world, this initial Satellite meeting had representatives from more than 10 countries (Canada, USA, France, Brazil, Ireland, Mexico, Italy, Argentina, Germany and Spain) in attendance. Presentations covered a broad range of topics from germ cells through lactation across many different perspectives, mainly related to domestic animals. The main Congress was preceded by a

second Satellite meeting on Indigenous health through a DOHaD lens piloted by Alexandra King (University of Saskatchewan) and Rhonda Bell (University of Alberta, Edmonton).

The World Congress began August 27, 2022 with one and a half days of outstanding sessions organised by trainees for trainees and covering topics such as career building, community engagement in research, networking and implementation science. Kozeta Miliku and Amanda Rowlands co-chaired this excellent trainee workshop.

The trainee sessions were followed by an open public panel on the impact of pandemics and trauma on child development, sponsored by the Fonds de Recherche du Québec and moderated by Rémi Quirion, Québec's Chief Scientist. Approximately 600 people attended this open public session.

The World Congress was held as a partnership between the International DOHaD Society, DOHaD Canada and a Canadian Network of Centres of Excellence (NCE), the Kids Brain Health Network. James Reynolds (Kingston) CSO Kids Brain Health Network was involved throughout the congress organisation. We were excited to share science space with KBHN members at

the different sessions, including social events. In total, 1014 delegates from more than 50 countries were registered for the Congress and more than 800 abstracts presented in both oral and poster format. Presentations included plenary sessions each day of the highest ranked abstracts submitted by trainees. Many thanks to Wendy Robinson (Vancouver) and Pablo Nepomnaschy (Vancouver), who were Local Program Vice-Co-Chairs.

The Congress opening included remarks by the Hon Jean-Yves Duclos, Minister of Health in the Canadian government. We hosted 10 invited speakers from around the world giving keynote plenary talks on topics ranging from Indigenous Health to climate change to the gut microbiome, with 18 different Symposia, as well as the Winners of the Society's David Barker Medal and Nick Hales Award, Peter Nathanielsz and Emilio Herrera respectively. Three of our invited speakers were past winners of the prestigious Canada Gairdner Foundation Global Health Award. Keynote speakers included Shinichi Kuriyama from Tohoku who spoke about the harmonisation of genetics and lifestyle in personalised medicine.

As always, our Congresses rely heavily on fundraising and sponsorship - and this year the Congress Sponsorship

group, led by Stephen Lye did an outstanding job of raising more than \$800,000 for our meeting from a diverse set of sponsors from industry to academia. Some noteworthy sponsors include FRQ, CIHR, Simon Fraser University, the Lunenfeld Tanenbaum Research Institute (Toronto) and the Dr Rogers fund of the Hecht Foundation.

We would like to extend a special acknowledgement to Victoria De Luca (Toronto) Executive Lead, for her outstanding professionalism. Her participation was critical to the success of the congress.

DOHaD 2022 World Congress Patrons:

- Janet Rossant - CC FRS
- Judith Hall - OC FRSC
- John O'Neil - FCAHS
- Michael Meaney - CM FRSC
- Remi Quirion - OC FRSC

Trainee and Networking Committee:

- Kozeta Miliku (co-Chair)
- Sandra Davidge (co-Chair)
- Amanda Rowlands (co-chair)
- Jen Zwicker
- Luseandra McKerracher
- Taylor Morriseau
- Erik Mohns
- Sophie Petropoulos
- Shelby Oke
- Audrey St Laurent

- Amy Inkster
- Vanessa Tomas
- Myrah Anum Malik
- Christian Bellissimo
- Khadija Barkatali
- Yamey Yu
- Mary Silubonde-Moyana
- Manohar Prasad Prabhu
- Dan Hardy
- Katherine Vandal
- Preeti Kar
- Melika Farahani
- Zainab albandari
- Fakhri Shafai
- Alice Soper
- Hajer Chalghoumi
- Doug Swanson
- MCI Staff (Toronto, Vancouver)

Programme and Executive Team

- Janice Bailey (Quebec City) Co-Chair
- John Challis (Vancouver) Co-Chair
- Victoria De Luca (Toronto)
- Wendy Robinson (Vancouver)
- Pablo Nepomnaschy (Vancouver)
- Stephen Lye (Toronto)
- Stephen Matthews (Toronto)
- James Reynolds (Kingston)
- Alexandra King (Saskatoon)
- Amanda Rowlands (Vancouver)
- Anne-Monique (Montreal)
- Rhonda Bell (Edmonton)
- Gino Giussani (Cambridge, UK)
- Jacquetta Trasler (Montreal)

- Kristin Connor (Ottawa)
- Kozeta Miliku (Hamilton)
- Lucilla Poston (London UK)
- Malcolm King (Saskatoon)
- Marc-Andre Sirard (Quebec City)
- Meghan Azad (Winnipeg)
- Michael Kobor (Vancouver)
- Sandra Davidge (Edmonton)
- David Olson (Edmonton)
- Deborah Sloboda (Hamilton)
- Tammy Clifford (Ottawa)
- Tanya Bubela (Vancouver)
- Tim Oberlander (Vancouver)
- Rob Waterland (Houston, USA)
- MCI Staff (Toronto, Vancouver)

Principal

Investigator Profile

Dr. Anita Kozyrskyj



Dr. Anita Kozyrskyj is Professor of Pediatrics at the University of

Alberta. She leads the SyMBIOTA (Synergy in Microbiota: www.symbiotalab.com) research program on early-life environmental shaping of the infant gut microbiome, and child immune-related and neurodevelopmental outcomes in the CHILD Cohort Study (www.childstudy.ca). SyMBIOTA was funded by the 2010 CIHR Microbiome Initiative and is now part of CIHR's IMPACTT microbiome research network, where Kozyrskyj is co-PI of the Human Cohort Design and Analyses Platform (www.impactt-microbiome.ca). Dr. Kozyrskyj's SyMBIOTA program has generated 50 papers, 3 book chapters and trained many next generation microbiome researchers. Her microbiome papers have received awards for being the most influential, and have been cited by position statements on food allergy and neonatal early-onset bacterial sepsis. She is associate editor of J. Dev. Orig. Health Dis. and the interim President of DOHaD Canada.

What were your initial career plans? Did your career trajectory follow the path you thought it would? How and why did your career plans evolve over

time?

I did not plan to be an academic and happily worked for 10 years as a NICU pharmacist at Mount Sinai Hospital, Toronto. This first career provided many cross-discipline clinical teaching and research opportunities, both hospital and university-based, and important to me as a daughter of new immigrants – financial independence. But I loved my little NICU research projects the most, and going to the hospital library to (manually) look up articles in Index Medicus. So, in my 30s, I pursued MSc & PhD training in epidemiology at the University of Manitoba because this was the place to do research with the brand-new province-wide prescription database. En route, I was mentored by trail-blazers in DOHaD and social determinants of health at the Manitoba Centre for Health Policy and CIFAR. As CIHR New Investigator and Assistant Professor at the University of Manitoba, I achieved my goal of establishing a novel birth cohort study through data linkage of provincial prescription records with prospective clinical assessments to evaluate the health impact of infant antibiotics. During this time, I became part of the new AllerGen NCE Network that established the CHILD (birth) Cohort Study. In my late 40s, I was fortunate to be recruited mid-career to the Department of Pediatrics, University of

Alberta into a research-dominant position. It is there that I really blossomed with CIHR Microbiome Initiative funding in human infant gut microbiome research. To this day, I remain captivated by DOHaD theories on health, which I now investigate in relation to the microbiome.

What is something you would like folks earlier in their research career than you to know? What should they keep at the forefront of their mind while they continue to figure out and pursue their goals?

It's never too late to be captivated or inspired by an idea or make a career change. Good to be prepared though, build on what you know and invest time to gain needed skills. Don't be intimidated by those who tell you it can't be done. This has happened to me more than a few times. Certainly, be a research opportunist. Select to do the research that is right for you at the right place at the right time.* Be persistent and finish what you start. Along your path, cultivate friendships and find humour in the quandaries of research life. Always show appreciation for those who helped you.

*paraphrased from the 5 R's of medication use.

Trainee Highlights - Congratulations!

Congratulations to Sawayra Owais



Congratulations to Sawayra Owais, a 5th year MD/PhD Candidate, who recently won Best Oral Presentation at the DOHaD Canada Meeting 2023.

Congratulations to Dr. Vanessa De Rubeis



Congratulations to Dr. Vanessa De Rubeis who recently completed her PhD in Health Research Methodology at McMaster University under the supervision of Dr. Laura Anderson. Vanessa's research investigated the impact of adverse childhood experiences on obesity and stress during the

pandemic with publications in the [International Journal of Epidemiology](#) and [International Journal of Obesity](#).

Congratulations to Dr. Elnaz Vaghef Mehrabani

Congratulations to Dr. Elnaz Vaghef Mehrabani, who was recently awarded the CIHR postdoctoral fellowship under the supervision of Dr. Gerry Giesbrecht to study how maternal nutrition pre-pregnancy and during pregnancy can impact behavior in early childhood. Elnaz would like to offer his many thanks to his supervisor and his mentors Dr. Catherine Field and Dr. Rhonda Bell for their great support.

Trainee Development Committee

Welcome from your Trainee Development Committee (TDC)! To learn more about us please go to: <https://dohad.utoronto.ca/members-index/trainees/>. We have a few exciting announcements to share with you.

Join DOHaD Canada on Slack

The TDC is excited to announce our plans to launch the first DOHaD Canada Network Slack Page! The purpose of the Slack group is to improve the way we communicate, collaborate, and connect

with one another, enabling us to stay up to date on the latest news, engage in vibrant discussions, and foster a thriving DOHaD Canada community!

With dedicated channels tailored to a variety of needs, you will have multiple opportunities to explore and connect with the DOHaD Canada Network. This network will bring together members from all levels. For example, are you a trainee looking for advice on your experiments, to meet other trainees ahead of the annual conference, or just for some fun science memes? There will be channels for trainees to share their experiences and get to know each other! There will also be channels to keep you in the loop regarding available positions in various labs across Canada, along with the latest grant and scholarship opportunities, and information on potential prospects for the next steps in your career. Or do you have a research-related question? There will also be a channel where you can directly and conveniently reach out to a pan-Canadian DOHaD expert panel for advice and guidance. Sharing knowledge is at the heart of scientific progress, and our paper sharing channel will serve as a vibrant space to exchange research papers, discuss findings with fellow researchers, and spark intellectual conversations.

Keep an eye out for the official launch of our Slack page. You'll receive more information on how to sign up to join this dynamic scientific community in a future email!

Learn, Grow, and Connect during Trainee Seminars!

The TDC is also excited to announce our upcoming Trainee Seminar Series! The purpose of this series is to enhance the experiences of DOHaD Canada trainee members and offer opportunities for professional development. Over the course of 40 minutes, each seminar will include a brief presentation from a trainee, followed by an engaging discussion. These seminars will provide opportunities for trainees to engage in peer-to-peer instruction and learning, with the aim of fostering the development of “soft skills” such as: effective communication, leadership, problem-solving, and time management. We also hope that these seminars will broaden trainees’ research networks and spur innovation. Seminars will be held on a bimonthly basis starting in August of 2023. Attendance certificates will be provided upon request.

The first seminar will take place on Friday, August 4th at noon EDT and feature a presentation by TDC co-chair, Gillian England-Mason. Gillian is a

postdoctoral fellow at the University of Calgary and her research focuses on the influence of pre- and postnatal environmental exposures on neurodevelopment and the epigenome. Her presentation will be on exposure to 'everywhere chemicals' during windows of susceptibility and child neurodevelopment. More details will be posted on the Slack Page, Twitter, and circulated via email!

Recent Publications

Be Healthy in Pregnancy (BHIP) Study at McMaster University

Perreault M, Mottola MF, Atkinson SA; BHIP study team. Individualized high dairy protein + walking program supports bone health in pregnancy: a randomized controlled trial. *Am J Clin Nutr.* 2022 Oct 6;116(4):887-896. doi: 10.1093/ajcn/nqac182. PMID: [35759368](https://pubmed.ncbi.nlm.nih.gov/35759368/).

Shanmuganathan M, Bogert M, Kroezen Z, Britz-McKibbin P, Atkinson SA. Dynamic Metabolic Signatures of Choline and Carnitine across Healthy Pregnancy and in Cord Blood: Association with Maternal Dietary Protein. *J Nutr.* 2023 Apr;153(4):999-1007. doi: 10.1016/j.tjnut.2023.02.013.

Epub 2023 Feb 11. PMID: [36780943](#).

Mortaji N, Krzeczkowski J, Atkinson S, Amani B, Schmidt LA, Van Lieshout R. Preliminary findings of emotion regulation in 12-month-old infants of mothers enrolled in a randomized controlled trial assessing a nutrition + exercise intervention. *Dev Psychobiol*. 2023 Mar;65(2):e22376. doi: 10.1002/dev.22376. PMID: [36811372](#).

Kendra Dempsey, Michelle F. Mottola, Stephanie A. Atkinson. Comparative Assessment of Diet Quality and Adherence to a Structured Nutrition and Exercise Intervention Compared with Usual Care in Pregnancy in a Randomized Trial, *Current Developments in Nutrition*, Volume 7, Issue 6, 2023. <https://doi.org/10.1016/j.cdnut.2023.100097>.

Mortaji N, Krzeczkowski J, Atkinson SA, Amani B, Schmidt L, Van Lieshout R. Early Neurodevelopment in the Offspring of Women Enrolled in a Randomized Controlled Trial Assessing the Effectiveness of a Nutrition + Exercise Intervention on the Cognitive Development of 12-Month- Olds. *J Dev Org Health Dis* 2023: **In press**.

More Publications

**Strategies to Promote, Protect and Support
Breastfeeding Practices of Refugee Mothers with
Post-Traumatic Stress Disorder (PTSD)**



Hirani, Shela & Lento, Nicole. (2023). Posttraumatic Stress Disorder and Breastfeeding Migrant Mothers: A Scoping Review. *Clinical Lactation*. 14. CL-2022. [10.1891/CL-2022-0023](https://doi.org/10.1891/CL-2022-0023).

Lafontaine S, Labrecque R, Blondin P, Cue RI, Sirard MA. Comparison of cattle derived from in vitro fertilization, multiple ovulation embryo transfer, and artificial insemination for milk production and fertility traits. *J Dairy Sci*. 2023 Jun;106(6):4380-4396. doi: 10.3168/jds.2022-22736. Epub 2023 Apr 5. PMID: [37028966](https://pubmed.ncbi.nlm.nih.gov/37028966/).



University of Alberta

116 St & 87 Ave, T6G 2R3, Edmonton, AB,
Canada

This email was sent to deluca@junefeld.ca
You've received it because you've subscribed
to our newsletter.

[Unsubscribe](#)