EYTAN WINE MD, PhD, FRCPC BIOGRAPHICAL SKETCH

Professor of Pediatrics and Physiology, University of Alberta, Edmonton, Alberta, Canada Staff Pediatric Gastroenterologist, Physician Scientist

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	Completion	FIELD OF STUDY
Tel-Aviv University, Tel-Aviv, Israel	BMedSc	06/1995	Medicine
Tel-Aviv University, Tel-Aviv, Israel	MD	06/1998	Medicine
Wolfson Medical center, Holon, Israel	Residency	10/2003	Pediatrics
Hospital for Sick Children, Toronto, ON, Canada	Fellowship	06/2007	Ped. Gastroenterology
University of Toronto, Toronto, ON, Canada	PhD	09/2008	Cellular Microbiology
University of Toronto, Toronto, ON, Canada	Postdoctoral	06/2009	Cellular Microbiology

Personal Statement: Unraveling complex chronic diseases remains a critical gap in biomedical research. Intestinal microbes are involved in many systemic disorders, including diabetes, obesity, and cancer. The role of microbes and how they are affected by diet in the pathogenesis of inflammatory bowel diseases (IBD) is the main focus of my research activities. My laboratory investigates mechanisms of microbial virulence related to IBD, and the complex interplay between diet, microbes, and disease, using *in vitro, ex vivo*, and *in vivo* disease models and human samples. Immune responses in IBD, as well as factors that determine pathogenicity of resident microbes, are actively investigated and supported by operating grants. My lab has specific interest in diet-microbe-host interactions and uses metagenomics and metabolomics from various human samples.

These interests fit very well with my clinical expertise as a pediatric gastroenterologist, treating children with IBD as a physician-scientist, with 75% protected time for research, mainly carried out in the laboratory, I enjoy the opportunity to combine clinical and scientific goals and cover basic, clinical, and translational areas of research from bench-to-bedside in an academic center of excellence. As one of the PIs and co-chair elect of the *Canadian Children IBD Network*, I am involved in multiple basic, translational, and clinical studies building on this unique, >1,500 patient, prospective, national, pediatric IBD inception cohort, which is now focusing on more specific translational research.

My research has allowed me to develop an international recognition and involvement in both research and clinical aspects related to my filed, including becoming the first *Chair of the European Society for Paediatric Gastroenterology Hepatology and Nutrition (ESPGHAN) IBD Porto Group Research Committee* and Member of the *Porto Group Executive* and the Lead on the anti-TNF section for the new *Porto/European Crohn's and Colitis Organization (ECCO) Crohn disease guidelines (JCC, 2021) as well as co-lead on the next ESPGHAN/ECCO UC Guidelines*. I have been invited to speak at major international meetings on these topics, as an expert speaker and visiting professor.

Major Committees, Workshops, and Memberships

2023-2025	Co-Chair - Canadian Children's IBD Network (CIDSCaNN)	
2023-	Mentoring in IBD Steering Committee, Member	
2022-2023	Co-Chair Elect - Canadian Children's IBD Network (CIDSCaNN)	
2021-2023	Canadian Children's IBD Network Basic & Translational Research Committee, Co-Chair	
2019-	Executive of Paediatric IBD Porto Group of ESPGHAN (Research and Financial Liaison)	
2019-2023	D-ECCO (Dietitians of European Crohn's and Colitis Organization) Committee Member; Officer of	
	ECCO	
2019	ECCO-ESPGHAN Paediatric CD Treatment Guideline Consensus. Committee member; Lead of	
	Anti-TNF section	
2017, 2019, 2022: 4th, 5th, 6th International Symposium on Pediatric IBD, Barcelona, Spain; Budapest, Hungary;		
	Edinburgh, Scotland (Scientific Committee; Chair of Basic Science Section).	
2017-2023	Paediatric IBD Porto Group of ESPGHAN Research Committee, Chair	
2015-2021	Canadian Child Health Clinician-Scientist Program (CCHCSP), U Alberta co-Lead	

Contributions to Science [Selected from a total of 135 peer-review publications; trainees underlined; H index: 42; total citations: 6,906 (as per Google Scholar, May 2023)]; trainees are underlined. Complete List of Published Work: https://scholar.google.com/citations?user=ON9jPY4AAAAJ&hl=en

- <u>H Armstrong, M Bording-Jorgensen</u>, DM Santer, <u>Z Zhang</u>, <u>R Valcheva</u>, AM Rieger, J Sung-Ho Kim, <u>SI Dijk</u>, R Mahmood, O Ogungbola, J Jovel, F Moreau, H Gorman, <u>R Dickner</u>, <u>J Jerasi</u>, <u>IK Mander</u>, <u>D Lafleur</u>, <u>C Cheng</u>, A Petrova, TL Jeanson, A Mason, CM Sergi, A Levine, K Chadee, D Armstrong, S Rauscher, CN Bernstein, MW Carroll, HQ Huynh, J Walter, KL Madsen, LA Dieleman, **E Wine**. *Unfermented β-fructan fibers fuel inflammation in select inflammatory bowel disease patients*. *Gastroenterology* 2023;164:228-40. *Featured on the cover of Gastroenterology*: <u>https://www.gastrojournal.org/issue/S0016508522X00024?dgcid=raven_jbs_etoc_email#fullCover</u>; Editorial: ubmed.ncbi.nlm.nih.gov/36410443/
- 2. <u>AS Hudson</u>, HQ Huynh, KL Novak, H Ma, A Kuc, J Kim, P Almeida, MW Carroll, **E Wine**, DM Isaac. *Pediatric* patient and caregiver satisfaction with the use of transabdominal bowel ultrasound in the assessment of inflammatory bowel diseases. JPGN 2023;76:33-7.
- 3. <u>H Armstrong</u>, H Park, M Rahbari, D Sharon, A Thiesen, N Hotte, K Madsen, **E Wine**, A Mason. *Mouse mammary tumor virus (MMTV) is implicated in severity of colitis and associated dysbiosis in the IL-10^{-/-} mouse model of inflammatory bowel disease. Microbiome 2023;11:39.*
- 4. <u>M Bording-Jorgensen</u>, <u>H Armstrong</u>, M Wickenberg, P LaPointe, **E Wine**. *Macrophages and Epithelial Cells Mutually* Interact Through NLRP3 to Clear Infection and Enhance the Gastrointestinal Barrier. Immuno 2022;2:13-25.
- 5. <u>A Bihari</u>, N Hamidi, CH Seow, KJ Goodman, **E Wine**, KI Kroeker. *Defining Transition Success for Young Adults with Inflammatory Bowel Disease According to Patients, Parents, and Health Care Providers. Journal of the Canadian Association of Gastroenterology 2022;5:192-8.*
- 6. M Ghiboub, S Penny, CM Verburgt, R Sigall Boneh, **E Wine**, A Cohen, KA Dunn, D Pinto, MA Benningma, WJ de Jonge, A Levine, JE Van Limbergen. *Metabolome changes with diet-induced remission in paediatric Crohn's disease. Gastroenterology* 2022;163:922-36.
- 7. PF van Rheenen, M Aloi, A Assa... E Wine*, FM Ruemmele. * Equal contribution. *The Medical Management of Paediatric Crohn's Disease: an ECCO-ESPGHAN Guideline Update. Journal Crohn's & Colitis 2021;15:171-94.*
- 8. R Sigall Boneh, J Van Limbergen, **E Wine**, A Assa, R Shaoul, P Milman, S Cohen, M Kori, S Peleg, A On H Shamaly, L Abramas, A Levine. *Dietary Therapies Induce Rapid Response and Remission in Pediatric Patients with Active Crohn's Disease. Clin Gastroenterol Hepatol* 2021;19:752-9.
- 9. <u>D Zaidi</u>, H Huynh, M Carroll, R Mandal, D Wishart, **E Wine**. *Gut microenvironment impacts bacterial invasion in pediatric inflammatory bowel diseases. JPGN 2020;71:624-32.*
- 10. A Levine, JM Rhodes, JO Lindsay, MT Abreu, MA Kamm, P Gibson, C Gasche, MS Silverberg, U Mahadevan, R Sigall Boneh, **E Wine**, OM Damas, G Symes, GL Trakman, CK Yao, SI Stockhammer, MB Hammami, LC Garces, G Rogler, I Koutrabakis, A Ananthakrishnan, JD Lewis. *Dietary Guidance for Patients with Inflammatory Bowel Disease from the International Organization for the Study of Inflammatory Bowel Disease. Clin Gastroenterol Hepatol 2020:18:1381-92.*
- <u>H Armstrong</u>, <u>M Alipour</u>, <u>R Valcheva</u>, <u>M Bording-Jorgensen</u>, J Jovel, <u>D Zaidi</u>, <u>P Shah</u>, Y Lou, C Ebeling, AL Mason, <u>D Lafleur</u>, <u>J Jerasi</u>, GKS Wong, K Madsen, MW Carroll, HQ Huynh, LA Dieleman, <u>E Wine</u>. *Host Immunoglobulin G Selectively Identifies Pathobionts in Pediatric Inflammatory Bowel Diseases. Microbiome 2019;7:1.*
- 12. A Levine*, **E Wine***, A Assa, R Sigall Boneh, R Shaoul, M Kori M, S Cohen S, S Peleg, H Shamali, A On, P Millman, L Abramas, T Ziv-Baran, S Grant, G Abitbol, D Turner, J Van Limbergen*. *Crohn's Disease Exclusion Diet Plus Partial Enteral Nutrition Induces Sustained Remission in a Randomized Controlled Trial.* * *co-senior authorship*. *Gastroenterology* 2019;157:440-50.
- 13. <u>H Armstrong</u>, <u>M Bording-Jorgensen</u>, <u>R Chan</u>, **E Wine.** Nigericin Promotes NLRP3-Independent Bacterial Killing in Macrophages. Frontiers in Immunology 2019;10:2296.
- M Lawley, JW Wu, VM Navas-López, HQ Huynh, MW Carroll, M Chen, P Medvedev, AS Day, S Hussey, R Sigall-Boneh, A Levine, E Wine. Global Variation in Use of Enteral Nutrition for Pediatric Crohn Disease. Journal of Pediatric Gastroenterology and Nutrition 2018;67:e22-29.
- 15. <u>D Zaidi</u>, HQ Huynh, M Carroll, S Baksh, **E Wine**. *Tumor necrosis factor* α*-induced protein 3 (A20) is Dysregulated in Pediatric Crohn Disease. Clinical and Experimental Gastroenterology* 2018;11:217-31.
- 16. <u>D Zaidi</u>, HQ Huynh, M Carroll, **E Wine**. *Prognostic value of probe-based confocal laser endomicroscopy in pediatric inflammatory bowel diseases. J Gastroenterology* 2018;2:77-87.
- 17. <u>M Bording-Jorgensen</u>, <u>M Alipour</u>, <u>G Danesh</u>, **E Wine**. *ATP-induced inflammasome activation enhances Citrobacter* rodentium clearance mediated by ROS. Cellular Physiology and Biochemistry 2017;41:193-204.
- 18. <u>D Zaidi</u>, <u>L Churchill</u>, HQ Huynh, MW Carroll, R Persad, **E Wine**. *Capillary Flow Rates in the Duodenum of Pediatric Ulcerative Colitis Patients Are Increased and Unrelated to Inflammation. Journal of Pediatric Gastroenterology and Nutrition 2017;65:306-10. Featured on Journal Cover*.