

Bandsma, Robert

Dr. Robert Bandsma is a Pediatric Gastroenterologist and Nutritionist at the Hospital for Sick Children (SickKids). He is a clinician-scientist at the Research Institute of SickKids. He is an Assistant Professor at the Department of Nutritional Sciences at the University of Toronto. He has a cross-appointment at the College of Medicine, University of Malawi and the University Medical Center Groningen in the Netherlands.

Robert Bandsma completed his undergraduate and medical training at the University of Groningen in the Netherlands. During his second year in university he became interested in metabolism research and joined the laboratory of Dr. Folkert Kuipers. He received additional research training in the Department of Nutritional Sciences, U.C. Berkeley under the supervision of Dr. Marc Hellerstein. Upon receiving the prestigious MD/PhD training grant from the Dutch Organisation for Scientific Research (NWO), he performed basic research on the regulation of carbohydrate and lipid metabolism and he received his PhD cum laude.

He did his pediatric residency at the Beatrix Children's Hospital in the Netherlands and after becoming a pediatrician he became a honorary lecturer at the College of Medicine, University of Malawi in 2007 where he also worked as a pediatrician and started his research on malnutrition. In 2008, he joined the Division of Gastroenterology, Hepatology and Nutrition of the Hospital for Sick Children as a clinical fellow. A post-doctoral fellowship under the supervision of Dr. Gary Lewis, University of Toronto, allowed him to further develop valuable research skills to perform complex *in vivo* metabolic studies. He then joined the Division of Gastroenterology at SickKids as a staff gastroenterologist and nutritionist.

His main research program aims to understand the relation between nutrition and metabolism, focusing on malnutrition. Malnutrition contributes to 45% of all deaths globally in children under 5 years. Present guidelines for treatment of ill malnourished children are based on minimal scientific evidence, prompting the WHO to declare that "new evidence-based interventions are urgently needed". Our understanding of the pathophysiology underlying the deaths of these children is surprisingly limited. Scientific progress has been slowed by a scarcity of mechanistic studies.

The ultimate aim of his research program is to develop novel yet simple evidence-based interventions that can be taken to clinical trials to reduce mortality in severely malnourished children. In Malawi, he established a clinical research unit, at the University of Malawi. The team currently consists of 20 staff and trainees and has successfully completed both observational cohort studies and clinical trials. In addition, he runs a research lab at SickKids where he developed pre-clinical models of malnutrition.



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He has published 53 manuscripts to date, many in leading specialty journals. He has received a number of prestigious awards, including an American Society of Parenteral and Enteral Nutrition. Rhoads Research Foundation Award and a North American Society for Pediatric Gastroenterology and Nutrition Foundation /Nestlé Nutrition Research Young Investigator Development Award. His work is supported the Bill and Melinda Gates Foundation and the Thrasher Research Fund among others. His achievements have led to the invitation to help set up a large international malnutrition research network to improve the outcome of ill malnourished children worldwide (CHAIN - <http://www.chainnetwork.org/>).