We are pleased to present the awardees of the TEP Bridge Funds and the TEP Travel Funds, who each received up to USD 100,000 or up to USD 10,000 respectively to advance their academic career.

**TEP Bridge Fund Awardees**

**James Butcher**
Characterizing the breastmilk microbiome with culture-enriched molecular profiling
TBF Awardee 2017

**Kassandra Harding**
Evaluation of the first breastfeeding social media marketing campaign in Ghana
TBF Awardee 2017

**TEP Travel Fund Awardee**

**Kyly Whitfield**
Responsive feeding
TTF Awardee 2017
Once thought to be sterile, breastmilk is now accepted to contain complex microbial communities and must supply all of the nutrients required by these commensal microbes. Microorganisms in the mother’s milk are important to colonize the gut of a new-born infant to help establish a healthy gut flora - all bacteria present in the gut and essential for human digestion and uptake of nutrients. How the breastmilk microbiota adapts, responds and thrives under various conditions is currently unknown and merits investigation. Unfortunately, routine microbiota profiling techniques are ill suited to this task, as they are confounded by breastmilk’s inherently low microbial biomass. This project will develop protocols for overcoming these limitations and allow researchers to assess how alterations in the environment and ultimately in breastmilk composition impact microbiota composition and microbial functions.

Dr. James Butcher received both his BSc and PhD in Biochemistry from the University of Ottawa, Canada, where he studied iron regulation in the pathogen Campylobacter jejuni. Dr. Butcher subsequently completed a Canadian Institutes for Health Research/Canadian Association for Gastroenterology postdoctoral fellowship in Inflammatory Bowel Disease at the Children’s Hospital of Eastern Ontario and studied the role of the microbiota in this increasingly prevalent disease. He is currently characterizing gut microbiota development in very low birth weight infants and studying how different feeding regimes influence gut microbiota composition in this vulnerable population. Dr. Butcher will use the funds from the Trainee Bridge Fund to develop protocols for phenotypically characterizing breastmilk microbiotas and study how breastmilk microbiotas respond to alterations in iron bioavailability.
There is a gap in published research regarding dissemination of breastfeeding related information approaches through social media platforms. This approach has the potential to be more cost-effective than traditional campaigns especially when combined with strategies to acquire high exposure and engagement. The utilization of social network analysis could be one approach to optimizing the dissemination of such campaigns given the interrelation between mass media campaigns, social support and breastfeeding practices. This study will implement, monitor and evaluate a breastfeeding social media marketing campaign through Facebook and Twitter and test different paths to disseminate campaign messages incorporating social network targeting methods.

Dr. Kassandra Harding is a Postdoctoral Associate at the Yale School of Public Health and a member of the Becoming Breastfeeding Friendly research team. Her research focuses on maternal and child nutrition and health in low-resource settings. Specifically, her interests include: 1) harnessing an understanding of health behavior and beliefs and employing innovative social media marketing methods to develop and improve breastfeeding interventions and promotion of local capacity building; 2) supporting breastfeeding through a focus on women’s social networks, empowerment and mental health in low-income settings.
Health outcomes are influenced not only by what, but how infants are fed: feeding modality may play a key role in shaping children’s eating behaviors and caregivers’ feeding practices as children develop. Responsive feeding allows infants to initiate and terminate feedings without caregiver interference, encouraging appropriate energy consumption and development of effective abilities to self-regulate intake in response to hunger and satiation cues. Alternatively, non-responsive feeding patterns, such as encouraging an infant to finish a bottle or feeding while distracted by technology, may lead to overfeeding and decrease the quality of the feeding interaction. To date, there has been no exploration of responsive infant feeding in Nova Scotia, the province with among the lowest breastfeeding rates in Canada. Kyly and Alison will videorecord feeding sessions with 20 mother-infant dyads in Halifax, Canada (10 breastfeeding and 10 feeding human milk from a bottle), for objective responsive feeding analysis in Alison’s lab. Kyly hopes that this highly specific training in assessment of responsive feeding and feeding interactions can help to inform the development of infant feeding guidelines for Nova Scotia.

Dr. Kyly Whitfield is an Assistant Professor in the Department of Applied Human Nutrition at Mount Saint Vincent University in Halifax, Canada. Kyly is passionate about breastfeeding and global nutrition: the majority of her research aims to identify and combat micronutrient deficiencies during “the first thousand days” window, from conception through 2 years. Kyly completed her PhD in Human Nutrition at the University of British Columbia under the supervision of Dr. Tim Green, where she studied the efficacy of thiamine-fortified fish sauce to address maternal thiamine deficiency and infantile beriberi in rural Cambodia. Kyly is keen to continue exploring public health-relevant breastfeeding research, this time ‘at home’ in Canada, focusing on responsive feeding among human milk-fed infants in Halifax. Kyly will be mentored by Dr. Alison Ventura (California Polytechnic State University), a leading expert in the study of mother-infant interactions during feeding and responsive feeding.