

Report on the Human Milk Banking Workshop
ISRHML Conference
Stellenbosch, South Africa
3rd of March 2016 9am-12pm

Human Milk Banking (HMB) was highlighted in a pre-conference workshop on the 3rd of March 2016 at the International Society of Research in Human Milk and Lactation (ISRHML) Conference. Held every two years, the conference was hosted this year for the first time African continent, in an effort to encourage a more global perspective and representation. It was also the first year to host an entire pre-conference workshop on Human Milk Banking, highlighting a trend seen throughout the conference to focus on public health research in addition lab-based research.

The Human Milk Banking Association of South Africa helped to sponsor the HMB workshop and Anna Coutsoudis, PhD served as the chair, representing her work from the University of KwaZulu-Natal, and collaboration with the KZN Department of Health and PATH in the HMB space in South Africa. A variety of speakers represented the global efforts in HMB, with a five-speaker series highlighted below:

Deborah O'Connor, PhD, from the Hospital for Sick Children in Toronto, Canada commenced the speaker panel, reviewing the benefits of donor human milk for vulnerable infants, specifically giving examples from the use of donor human milk in Toronto. Dr. O'Connor reviewed the literature on the benefits of donor human milk provided to vulnerable infants, including the Cochrane Review from 2014 that shows a decrease in the prevalence of Necrotizing Enterocolitis (NEC). She also presented on the DoMINO trial that is currently on-going, looking into the possible neurological benefits for the use of donor human milk, although preliminary results do not show differences in Bailey scores for motor cognitive development between groups separated by feeding type. She finished her talk with an appropriate question to ask, is the exclusive use of donor human milk appropriate for long-term use to meet the nutrition needs of infants? Further research is needed to address this concern, especially given the decrease in micronutrient composition with the myriad of processing steps.

Suzanne Delpont, Pediatrician from the Department of Paediatrics at Kalafong Hospital and the University of Pretoria, presented on the benefits of the use of donor human milk in the South African setting, showing incredible efforts to provide exclusive human milk diets in her hospital setting. Dr. Delpont presented a trail that showed decreases in NEC, mortality due to hospital acquired infections, and length of hospital stay when donor human milk was used to supplement the diet instead of preterm formula. She finished by showing the extensive work that her unit has championed, including a scoring mechanism to indicate readiness for donor human milk, to ensure access and provision of mom's own milk only and then provision of donor human milk when needed.

Kiersten Israel-Ballard, PhD, representing PATH, an international health organization, presented on the history of human milk treatment methods and systems, showing a variety of methods and technologies available for the use in HMB. Dr. Israel-Ballard called the group to action to recognize that current systems may be outdated, especially regarding where science is leading, and that there is a need to research and develop superior treatment systems to maintain the immunological and other beneficial components of the milk, while preventing harm from being done to the infant. She highlighted the project currently implementing FoneAstra in the KZN province, as a low-cost, flash-heat pasteurization system that helps track the temperature and guide the user through a cell-phone based platform.

Koleka Mlisana, PhD, lead Microbiologist from the University of KwaZulu-Natal, highlighted the microbes that are of interest in donor human milk, which are concerning when working with such a vulnerable population, and current screening methods utilized in the KZN province. Dr. Mlisana highlighted how imperative it is to test the milk post-pasteurization to ensure that the pasteurization system adequately treated the milk. A comparison of different HMB guidelines presented showed the similarities and differences for testing methods to screen for bacterial contamination levels, and that more work needs to be done to come up with cost-effective approaches to testing human milk.

Penny Reimers, PhD, representing the Community Milk Bank project of Durban, finished the session with a discussion on the ethical issues around paying mothers for their donated human milk. An ethical framework was proposed focusing on meeting the need of the vulnerable infants, while supporting the availability and quality of the donor human milk. She presented several views and statements from researchers, companies, individual opinions, and those of milk banking associations. Importantly there are mixed views on finding ways to reimburse the mothers that donate for their time, potentially through non-financial incentives. Many questions remain to be solved to meet the need while promoting that mother's breastfeed their own infants first prior to donating to other infants in need.

For further information about the conference see the following link: <http://www.isrhml2016.co.za/>
For more information on the ISRHML, see the following link: <http://www.isrhml.net/>