

Oligosaccharides - unlocking the unique power of human milk.

It is widely understood that breastmilk is the ‘gold standard’ when it comes to infant nutrition, but what makes human milk different from infant formula, and what are the latest discoveries about the way in which it protects against infections and diseases? The latest research from Dr Lars Bode, from the University of California reveals some important findings about the presence of oligosaccharides in human milk, which will be presented at Medela's 7th International Breastfeeding and Lactation Symposium in Vienna, Austria, from 20-21 April 2012.

Dr Bode's team has been studying why formula-fed, mainly preterm born infants are six times more likely to suffer from necrotizing enterocolitis (NEC) than infants who were fed with breastmilk. Necrotizing enterocolitis is a serious, life threatening inflammatory bowel disease which affects around 5-10% of very low birthweight babies, and which has an average mortality rate of 25%.

The answer may lie, at least in part, to the high concentration of unbound oligosaccharides in breastmilk, which have important interactions with the immune system, and offer protective effects against NEC.

Human Milk Oligosaccharides (or HMOs) are complex sugars which are abundant in human milk, but are not found in infant formula. More than a hundred structurally distinctive HMOs have been identified, and there is still much to be discovered about their workings.

Dr Bode's breakthrough research has isolated a single HMO that may protect the breastfed infant from NEC which is not found anywhere else in nature. This unique, naturally occurring oligosaccharide is structurally distinct from oligosaccharides which are added to infant formula, and it is unlikely that they can mimic the same effects.

Lars Bode said, "We are uncovering some fascinating scientific insights into how breastmilk can help protect the health of the baby. We hope our discoveries around the role of oligosaccharides in preventing NEC will directly benefit premature babies, and will therefore save lives. Another interesting area we are doing research in relates to the power of HMOs in blocking the transmission of the HIV virus to the infant through breastmilk."

Medela is committed to supporting research into the unique composition and value of human milk, and has developed a particular expertise in relation to supporting the feeding of premature infants. Leon Mitoulas, Head of Breastfeeding Research, Medela said, "*Medela is delighted that Dr Lars Bode will present his research as part of the 7th international breastfeeding and lactation symposium. The role of human milk oligosaccharides is a compelling and evolving area of research which is highly relevant to all those involved in infant nutrition, research and practice.*"

ENDS

Note to Editors

Medela's 7th International Breastfeeding and Lactation Symposium to be held in Vienna Austria (20-21 April 2012) will focus on the unique components of human milk, the value of human milk in NICU, as well as latest recommendations for research based practice. Dr Lars Bode will be joined by several international experts who will share their latest findings on a number of related topics including the presence of stem cells in human milk, the value of donor milk in NICU, and the interaction between medication and mother's milk. This annual event is attended by an international audience of paediatricians, neonatologists, midwives and lactation consultants, all of whom have a special interest in learning more about breastmilk composition.

This year, Medela is working to encourage greater participation from the science, research and technology community at large, aiming to create discussion and ties between lactation researchers and colleagues from other fields, as well as the press and other stakeholders.

Media Programme

A specific media programme is being developed in parallel to the Symposium giving media the opportunity to meet and exchange views and information with international researchers.

A webcast will be organised for journalists on **Friday April 20th from 10:30 to 11:30 Vienna time (CET, Central European Time)**. Registration for this webcast is by email (see below).

In addition, interviews can be organised before, during and after the symposium. Embargo restrictions may be applied. Speaker profiles and abstracts for the symposium can be found on the website:

<http://www.medela.com/IW/en/breastfeeding/for-professionals/congress2012/speakers.html>.

For further information and registration, please visit www.Medela.com/congress and/or contact Veronika Studer Medela Communication Manager [Tel.: +41/ (0)41 / 769 54 37 | Email: Veronika.studer@medela.ch]

@Medela: Medela Twitter will be live before, during and after the event

Symposium Programme

<http://www.medela.com/IW/en/breastfeeding/for-professionals/congress2012/programme.html>

Friday April 20th

The Unique Components of Human Milk

- The uniqueness of the components of human milk – Professor Peter Hartmann (UWA)
- Oligosaccharides in human milk – Dr. Lars Bode (University of California, San Diego)
- New discoveries in human milk (stem cells) – Dr. Foteini Hassiotou (UWA)

Saturday April 21st

Latest Recommendations for Research Based Practice

- CMV and mothers' milk – Professor Klaus Hamprecht (University of Tübingen)
- Breastfeeding patterns – Dr. Jacqueline Kent (UWA)
- Medications and mothers' milk – Dr. Tom Hale (Texas Tech University School of Medicine)

The Value of Human Milk in NICU

- Family centred care in NICU – Professor Uwe Ewald (Uppsala University, Sweden)
- Increasing the value of donor human milk in the NICU – Questions and Opportunities – Dr. Ben Hartmann (King Edward Memorial Hospital, Australia)
- Infant Gastric Physiology – Ultrasound studies of the term and preterm infant – Dr. Donna Geddes (UWA)

Venue : Palais Ferstel, Strauchgasse 4, A - 1010 Vienna [www.palaisevents.at]

About Medela

Medela provides the most technologically advanced, superior-quality breastpumps and breastfeeding accessories to nursing mothers around the world. A longtime champion of breastfeeding, Medela is the only company to develop products based on research by the world's leading lactation experts. As a result, Medela's breastpumps are the number one choice of healthcare professionals and healthcare facilities worldwide.

Medela has developed an extensive line of products to meet the diverse needs of nursing mothers. These products include hospital-grade, double and single electric and manual breastpumps; breastfeeding accessories such as pump cleaning products, breast care products and specialty feeding devices; and maternity and nursing intimate apparel.

Founded in 1961 by Olle Larsson in Zug, Switzerland, Medela continues to grow under the ownership of the Larsson family. Medela serves customers through a worldwide network of distribution partners in more than 90 countries and its 15 subsidiaries in Australia, Benelux (Belgium and the Netherlands), Canada, China, France, Germany (Austria), Italy, Japan, Poland, Russia, Spain (Portugal), Sweden (Norway and Denmark), Switzerland, the United Kingdom and the United States.

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