



# 14<sup>th</sup> International Conference on Lactoferrin Structure, Function and Applications

November 4-8, 2019  
Lima, Peru



UNIVERSIDAD PERUANA  
CAYETANO HEREDIA

## PROGRAM

### NOVEMBER 4<sup>th</sup> 2019

08:00-09:15 REGISTRATION

09:15-9:20 THERESA OCHOA

*Welcome*

#### **LACTOFERRIN: INMUNOMODULATING ACTIVITY**

*Moderator: Theresa Ochoa*

09:20-09:50 BO LÖNNERDAL

*Biological activities of the human milk lactoferrin-osteopontin complex.*

09:50-10:10 CAROLINE BARROS

*Bovine lactoferrin inhibits the fibrillization of prion protein.*

10:10-10:30 JACOB BYRNE

*Lactoferrin promotes house dust mite protease-induced gut damage: implications for allergic disease development.*

#### **10:30-11:00 COFFEE BREAK**

#### **LACTOFERRIN: INMUNOMODULATING ACTIVITY**

*Moderator: Bo Lönnerdal*

11:00-11:30 SEBASTIAN PETER GALUSKA

*Lactoferrin interacts with polysialic acid: MacGyver gets a dynamic tool.*

11:30-12:00 JEFFREY ACTOR

*Lactoferrin treatment alters macrophage phenotypes and permits drug penetration to the mycobacterial granuloma.*



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12:00-12:30 ERICK NONNECKE

*Investigating the in vivo roles of lactoferrin in innate immunity and early development using a knockout mouse model*

**12:30-14:30 LUNCH**

## **LACTOFERRIN: CELL PROLIFERATION AND DIFERENTIATION**

*Moderator: Nena Planas*

14:30-15:00 ALEXEY SOKOLOV

*Study of the effect of lactoferrin and lactoferrin-oleic acid complex on tumour growth in mice.*

15:00-15:20 CÁTIA SANTOS-PEREIRA

*Lactoferrin is selectively cytotoxic for highly metastatic cancer cells by inhibiting plasmalemmal V-ATPase.*

15:20-15:40 VANESSA ROCHA

*Effect of bovine Lactoferrin on human prostate tumorigenic cell lines.*

**15:40-16:10 COFFEE BREAK**

## **LACTOFERRIN: CELL PROLIFERATION AND DIFERENTIATION**

*Moderator: Jianhua Wang*

16:10-16:40 ANTIMO CUTONE

*Native and iron-saturated bovine lactoferrin differently hinder migration in a model of human glioblastoma by reverting epithelial-to-mesenchymal transition-like process and inhibiting interleukin-6/STAT3 axis*

16:40-17:00 NINIVE RODRIGUEZ

*Human and bovine lactoferrin mediate different cell processes in breast cancer cells.*

17:00-17:20 IZAMAR ARREDONDO

*Antitumor activity of bovine Lactoferrin and its derived peptides against HepG2 (liver cancer) and Jurkat (leukemia) cell lines.*

**17:20-19:00 BREAK**



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## **KEYNOTE LECTURE AND WELCOME CEREMONY**

19:00-19:40 HANS VOGEL

Keynote lecture: *Lactoferrin, 80 years and counting.*

19:40-21:00 WELCOME CEREMONY AND RECEPTION



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**NOVEMBER 5<sup>th</sup> 2019**

## **LACTOFERRIN: NATURAL AND SYNTHETIC PEPTIDES**

*Moderator: Hans Vogel*

09:00-09:30 TOON LEIGTENBERG

*LFchimera and its constituent LFc<sub>in</sub> and LFampin peptides, an overview.*

09:30-10:00 NIDIA LEON-SICARIOS

*Lactoferrin and Lactoferrin peptides against multidrug resistant bacteria.*

10:00-10:20 DIANA RAMIREZ

*Bovine lactoferrin and lactoferrin derived peptides exert anti-cancer activity against endometrial and cervical cancer cell lines.*

10:20-10:40 JULIETH ROMAN

*Peptide derived from bovine lactoferricin incorporated into pullulan nanofibers exhibits antibacterial activity*

**10:40-11:10 COFFEE BREAK**

## **LACTOFERRIN: NATURAL AND SYNTHETIC PEPTIDES**

*Moderator: Nidia Leon-Sicarios*

11:10-11:40 HANS VOGEL

*Antibiofilm activity of lactoferrin-derived synthetic peptides.*

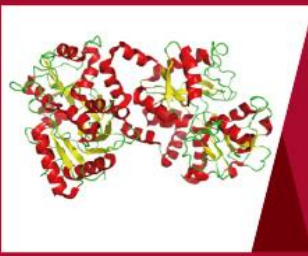
11:40-12:10 JIANHUA WANG

*Fatty acid conjugation enhances the activities of antimicrobial peptides and study on topically therapeutic efficacy in mice infected by staphylococcus hyicus.*

12:10-12:30 DA TENG

*Improved antibacterial activity of a marine peptide-N2 against intracellular Salmonella typhimurium by conjugating with bLF<sub>cin6</sub>.*

12:30-12:50 ROBERT BEVERLY



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*Tracking the release and survival of human lactoferrin peptides across the infant.*

## 12:50-14:30 LUNCH

### LACTOFERRIN – BACTERIAL INTERACTIONS

*Moderator: Trevor Moraes*

14:30-15:00 ANTHONY SCHRYVERS

*Bacterial lactoferrin receptors – An evolutionary perspective.*

15:00-15:20 JULIA ESPINDOLA

*Sequence diversity of lactoferrin receptors in Moraxella bovis and Moraxella bovoculi.*

15:20-15:40 CLEMENT CHAN

*Probing the function of CopB in bacterial iron uptake.*

15:40-16:00 URIEL ANGULO

*Bovine lactoferrin affects eDNA of Streptococcus pneumoniae biofilms; implications in biofilm architecture and transformation*

## 16:00-16:30 COFFEE BREAK

### LACTOFERRIN – BACTERIAL INTERACTIONS

*Moderator: Anthony Schryvers*

16:30-17:00 TREVOR MORAES

*Overcoming the antimicrobial properties of lactoferrin: Roles for the bacterial surface lipoprotein Lbp.*

17:00-17:30 MARIA LEPANTO

*Effect of bovine lactoferrin on invasion and intracellular survival of adherent-invasive Escherichia coli LF82 as well as on bacteria-induced DNA damage in differentiated human enterocytes.*

17:30-17:50 LUIGI ROSA

*Lactoferrin and oral pathologies: a therapeutic treatment.*

## 17:50-18:30 POSTER SECTION



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**NOVEMBER 6<sup>th</sup> 2019**

## **LACTOFERRIN CHARACTERIZATION, BIOAVAILABILITY AND BIOEQUIVALENCE**

*Moderator: Vadim Vasilyev*

09:00-09:30 MARIAN KRUZEL

*The systemic effects of dietary lactoferrina.*

09:30-09:50 LOURDES SANCHEZ

*Effect of technological treatments on bovine lactoferrina.*

09:50-10:10 TRAVIS KIRPATRICK

*An LC-MS/MS method for quantifying Lactoferrin concentration in plasma.*

10:10-10:30 MAXIM KIRYUKHIJN

*Template-assisted encapsulation of lactoferrin: effect of a template on lactoferrin loading efficiency.*

**10:30-11:00 COFFEE BREAK**

## **LACTOFERRIN APPLICATIONS**

*Moderator: Anthony Schryvers*

11:00-11:30 HIROYUKI TSUDA

*Application of bovine lactoferrin in remissive human inflammatory bowel diseases.*

11:30-12:00 VADIM VASILYEV

*Lactoferrin rescues cognitive functions in the offspring of rats subjected to hypoxia in pregnancy.*

12:00-12:20 JAROSLAW ARONOWSKI

*Lactoferrin-based approach to reduce brain damage after intracerebral hemorrhage (ICH).*

12:20-12:40 ESTEFANIA MASSA

*Lactoferrin: potential role in the reproductive process.*

**12:40-14:30 LUNCH**



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**15:00 CITY TOUR**



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**NOVEMBER 7<sup>th</sup> 2019**

## **SYMPOSIUM ON NEONATAL SEPSIS AND LACTOFERRIN**

*Moderators: Jaime Zegarra and Theresa Ochoa*

09:00-09:10 THERESA OCHOA

*Introduction: aims of the symposium.*

09:10-09:30 MOHAN PAMMI

*Randomized controlled trial evidence for the use of lactoferrin in neonatal sepsis.*

09:30-09:50 JANET BERRINGTON

*ELFIN: the UK preterm lactoferrin trial.*

09:50-10:10 WILLIAM TARNOW-MORDI

*Lactoferrin infant feeding trial (LIFT) in very low birth weight infants: a pragmatic RCT.*

10:10-10:30 THERESA OCHOA

*The NEOLACTO trials: effect of human lactoferrin intake on sepsis.*

**10:30-11:00 COFFEE BREAK**

11:00-11:20 NICHOLAS EMBLETON

*Mechanisms affecting the gut of preterm infants in the ELFIN lactoferrin trial (MAGPIE).*

11:20-11:40 DAVID KAUFMAN

*Optimizing Lactoferrin Dosing in Preterm Infants: Have We Been Studying the Correct Doses?*

11:40-12:00 STÉPHANE SIZONENKO

*Lactoferrin for the developing brain: ready for clinical trial?*

12:00-12:30 MOHAN PAMMI

*Discussion and conclusions.*

**12:30-14:30 LUNCH**





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## LACTOFERRIN AND INFANT FORMULA

*Moderator: Bo Lönnerdal*

14:30-15:00 STAFFAN BERGLUND

*The LIME study: Clinical effects of bovine lactoferrin and lower iron content in infant formula.*

15:00-15:20 SHUTARO KUBO

*Effects of lactoferrin-fortified formula on acute respiratory and gastrointestinal illnesses in children aged 12-32 months: A randomized, double-blind, placebo-controlled trial.*

15:20-15:40 MARIA BJÖRMSJÖ

*The LIME study: Iron status effects of bovine lactoferrin and lower iron content in infant formula.*

15:40-16:00 MARTINE VAN GOOL

*Analytical challenges towards an international reference method for the analysis of lactoferrin in infant formula.*

**16:00-16:30 COFFEE BREAK**

## LACTOFERRIN AND INFECTIOUS DISEASES

*Moderator: Nidia Leon-Sicarios*

16:30-17:00 STEPHANE SIBLEY

*Prevention of nosocomial infections in critically III patients with lactoferrin.*

17:00-17:20 HIROTSUGU ODA

*Effect of lactoferrin on prevention of infectious diseases in winter: a randomized, double-blinded, placebo-controlled trial.*

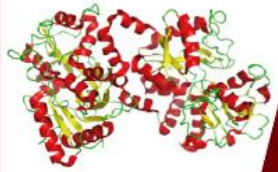
17:20-17:40 CHRISTIANE WOBUS

*Antiviral effects of bovine lactoferrin on human norovirus.*

17:40-18:00 STUART IRWIN

*Parenteral Lactoferrin in Hardware Related Infection.*

**18:00-19:00 POSTER SECTION**



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**19:00-22:00 GALA DINNER**



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**NOVEMBER 8<sup>th</sup> 2019**

## **LACTOFERRIN AND INFECTIOUS DISEASES**

*Moderator: Hans Vogel*

09:00-09:20 ERIC COX

*Lactoferrin to combat enterotoxigenic Escherichia coli infections using a piglet model.*

09:20-9:40 Yesenia Filio

*Metagenomic analysis of altered gut microbiota after the administration of bovine LF as preventive treatment against diarrhea.*

09:40-10:00 DAISY VANROMAY

*Ovotransferrin against Chlamydia psittaci respiratory disease in poultry: from the lab to the farm.*

## **CONCLUDING REMARKS**

10:00-10:20 JIANHUA WANG

*Presentation of the 15th Lactoferrin Conference.*

10:20-10:30 THERESA OCHOA

*Concluding remarks.*

**10:30-11:00 COFFEE BREAK**