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# 3<sup>rd</sup> International Conference on Nutrition & Growth

Vienna, Austria, March 17-19, 2016

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## Abstract Book

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# Committees

## **Chairpersons and Organizing Committee**

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Raanan Shamir, Israel

Dominique Turck, France

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Jan-Maarten Wit, The Netherlands

# General Information

## Conference Venue

Reed Messe Wien GmbH  
Congress Center  
Messeplatz 1  
Vienna, Austria  
T: +43 1 727 20-0  
F: +43 1 727 20-2359  
E: congress@messe.at

## Language

English is the official language of the Conference.

## Registration

Desks will operate as follows:

Thursday, March 17	10:00 – 20:15
Friday, March 18	07:30 - 19:15
Saturday, March 19	07:30 - 16:45

## Name Badge

Upon registration you will receive your name badge. Please wear your badge during the Conference in order to access the session halls and Exhibition Area.

## Clothing

Attire, throughout the Conference, is casual and informal.

## Mobile Application

Install the N&G 2016 interactive Mobile App on your smartphone and portable devices to access all of the information you could need during and after the Conference.

- See the overview of sessions, speakers and exhibitors
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## Neonatal & Prematurity

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### EFFECTS OF PASTEURIZATION ON REDOX PROPERTIES OF COLOSTRUM AND MILK FROM MOTHERS OF PRETERM INFANTS

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#### Background and Aims

Donated milk represents a desirable alternative to formula feeding, especially for preterm infants. Milk banks collect both preterm and term human milk and apply pasteurization to remove possible infectious contaminants.

We examined the effects of pasteurization on redox properties of milk from mothers of preterm infants and its fractions.

#### Method

Electron paramagnetic resonance spectroscopy of hydroxyl-radical generating Fenton system was applied to analyze redox properties of milk from mothers of preterm infants and its fractions (skim milk and whey) and reactive products of oxidation of ascorbate and uric acid in the milk.

#### Results

Colostrum showed drastically higher capacity for hydroxyl radical removal compared to transient and mature milk from mothers of preterm infants. The signal of ascorbic radical was very weak in pasteurized milk, whereas the intensity of urate radical adduct was higher compared to fresh milk. A significant negative correlation is present ( $R = -0.797$   $p < 0.0001$ ) between signal intensities of urate radical adduct and ascorbic radical only in pasteurized milk.

#### Conclusion

Milk from mothers of preterm infants has high redox capacity, and it is a very important for growth and development of premature infants. However, redox capacity decrease during lactation, and pasteurization appears to undermine the redox properties of the milk.

#### Acknowledgments

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