

# 3<sup>rd</sup> International Conference and Exhibition on Nutrition & Food Sciences

September 23-25, 2014 Valencia Convention Centre, Spain

## Antioxidant capacity assessment of the fat soluble vitamins from sea buckthorn oil (*Hippophae rhamnoides*, spp. *Carpatica*) and polyphenols from walnut (*Juglans Regia* L) on heat treated meat products

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The use of vegetal oils and oilseeds at smoked and heat treated meat product manufacture contributes to the improvement of their nutritional value. Intake of essential fatty acids ( $\omega:3$ ) and of fat soluble vitamins (E; A) has been evaluated in regard to lipid profile optimization and total antioxidant capacity assessment of the functional fat soluble vitamins in the meat product. Fatty acid composition has been assessed by <sup>1</sup>H NMR in g/100g fat, vitamin E content as  $\alpha$ -tocopherol in mg/100g fat, vitamin A content as  $\beta$ -caroten in mg/100g fat, total antioxidant capacity (AC) in nmol Trolox/g fat, peroxide value (PV) in meq/1Kg fat. The study assessed the antioxidant potential of the natural ingredients on the lipid oxidation degree during meat product storage. Medical research has demonstrated the role of lipid oxidation compounds on the onset of non-communicable diseases. The results of this study are used to determine the amount of antioxidants, from natural sources, required in order to achieve product preservation.

### Biography

Tamara Mihociu is a researcher working with The National Research and Development Institute for Food Bioresources - IBA Bucharest, her expertise is on food chemistry and technology focused on meat product research. Currently she is pursuing PhD at "Dunarea de Jos", University of Galati on "Food Science and Technology". She is involved in applicative research, food safety and innovation activities on meat and fish products. She has been working on national and international research projects for 9 years. She has a patent on "Low sodium meat emulsion system", she has collaborated with partners on the development of high nutritional content products: "obtaining eggs with high fatty acid ( $\omega:3$ ) content". Publication on aquaculture food safety system, "PCR assessment of microbial contaminants", "heavy metal contaminant assessment of Romanian open system fisheries". Currently working on product development and applicative research on "The Nutritional Optimization of Meat products with bioactive rich vegetal (OPTIMEAT)" research project.

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