

# International Congress on Promotion of Traditional Food Products

PT | EN

Mosteiro de Refóios do Lima  
03 | 04 | 05 MAIO/MAY '12  
PONTE DE LIMA · PORTUGAL

## Malgorzata Korzeniowska

### PhD

Department of Animal Products Technology and Quality Management  
Faculty of Food Science  
Wroclaw Univeristy of Environmental and Life Sciences  
37/41 Chelmonskiego Str.  
51630 Wroclaw, Poland  
(48) 71-3207774 Fax: (48) 71-3207782  
email: malgorzata.korzeniowska@up.wroc.pl

5/17 Krzywoustego Str.  
51165 Wroclaw, Poland  
(48) 607110346

### Education

- Ph.D. 2004 Agricultural University, Wroclaw, Poland  
Major: Poultry meat and eggs technology  
Thesis title: *Changes of physicochemical properties of myofibrillar proteins from chicken muscles in relation to oxidation processes*
- M.Sc. 1999 Agricultural University, Wroclaw, Poland  
Major: Poultry meat and eggs technology  
Thesis title: *Isolation and purification of cystatin from egg white using membrane techniques and affinity chromatography*

### Academic Employment

- 2004-Present Department of Animal Products Technology and Quality Management, Faculty of Food Science, Wroclaw Univeristy of Environmental and Life Sciences  
Adjunct
- 2010 Faculty of Food and Land Systems, The University of British Columbia, Vancouver, Canada  
4-months post doctoral fellowship sponsored by The Dekaban Foundation
- 2010 School of Natural Resources, The Ohio State University, Columbus, Ohio, USA  
5-months post doctoral fellowship sponsored by OECD
- 2002-2003 Teagasc The National Food Centre, Dublin, Ireland  
12-months Marie Curie Foundation Fellowship for PhD candidates
- 2002 Universität Hohenheim, Stuttgart, Germany  
3-months scientific exchange for PhD students in Socrates/Erasmus Programme
- 1999-2004 Department of Animal Products Technology and Quality Management, Faculty of Food Science, Wroclaw Univeristy of Environmental and Life Sciences, PhD student

### Trainings

- II.2010 University of Miguel Hernandez del Elche, Alicante, Spain  
Scientific exchange for academic teachers in Erasmus Programme
- VIII-IX.2009 Szent Istvan University – Godollo, Hungary

VI.2009	Lecturer on 2-weeks intensive programme in: Safeguarding and Promoting Interests in the Agro-Food Industry – Experience and Perspectives in Europe Mendel University of Agriculture and Forestry, Brno, Czech Republic
XII.2008	Lecturer on 2-weeks intensive course in „Organic Agriculture - Innovation for a Sustainable Agriculture, Food Safety and Public Health” Agricultural University of Athens, Athens, Greece
VII.2007	Scientific exchange for academic teachers in Erasmus Programme Burgos University, Spain
V.2007	Lecturer on 2-weeks intensive course in „Functional Foods” Escuela Politecnica Superior Universitat de Vic, Spain
XI.2005	Scientific exchange for academic teachers in Socrates/Erasmus Programme University of Technology and Agriculture, Bydgoszcz, Poland
2005	training in meat histology
2001, 2002	Training in meat industry ZPM Dworeccy and ZPI Gizewscy, Poland Ghent University, Belgium
2001-2002	two 2-weeks intensive courses in „Functional Foods” and „Raw materials”, participant Tempus/Phare Programme concerning harmonization of Polish food and agriculture, also ecological agriculture, sector with European Union regulations lecturer and trainingships leader
2000-2001	7 intensive trainings concerning food production and ecological agriculture in the framework of European Tempus/Phare Programme

### Publications

56 original papers  
2 popular articles  
2 reports from research project's (not published):  
65 abstracts and notes

### Guest Lectures at Other Institutions

2011	Taylor's University, Kuala Lumpur, Malaysia
2011	China Medical University, Taichung, Taiwan
2010	University of British Columbia, Vancouver, Canada
2010	University of Miguel Hernandez de Elche, Alicante, Spain
2009	State University of Agriculture, Moscow, Russia
2009	Sankt Petersburg, Russia
2009	Szent Istvan University in Godollo, Hungary
2009	Mendel University of Agriculture and Forestry, Brno, Czech Republic
2008	Agricultural University of Athens, Athens, Greece
2007	Burgos University, Spain
2007	Escuela Politecnica Superior Universitat de Vic, Spain

### Funded Research Grants and Contracts

#### Active

2011-2012	Enhancement of attractiveness and nutritional value of the processed sour cherries - researcher
2010-2013	Optimization technology for vegetable crisps taste modified using osmotic drying, convection and microwave under reduced pressure - researcher.
2010-2013	Developing of the quality and pro-health properties of chicken meat by increasing its antioxidative potential. – <b>leader of the project.</b>
2009-2012	OVOCURA Innovative technologies of biopreparates production based on eggs of new generation – researcher.
2009-2012	Preparates of natural dipeptides from muscle food expressing antioxidative activity and their application in foods products and supplements. – researcher.

### **Completed**

- 2009-2010 Analysis of antioxidative potential of chicken muscles in relation to breeding system – **leader of the project.**
- 2007 – 2009 Poultry meat abnormalities – scientific, practical and economical implications. – researcher.
- 2005-2007 Limitation of the lipids, cholesterol and proteins oxidation processes in meat products by the addition of chosen natural groups of polyphenolics substances isolated from plant sources. – **leader of the project.**
- 2000-2001 Oxidation and proteolysis proceses modifying myofibrillar proteins from chicken muscles. – researcher.

### **15 Graduate Students**

#### **Professional Societies**

World's Poultry Science Association  
Polish Food Technology Association  
European Lipids Federation  
Marie Curie Fellowship Association

#### **Offices and Honors**

2006, 2008, 2009, 2010 awards of JM Rector's of Wroclaw University of Environmental and Life Sciences for scientific activity

# INNOVATION OF TRADITIONAL MEAT PRODUCTS BY AN APPLICATION OF NATURAL POLYPHENOLIC SUBSTANCES

## Korzeniowska Małgorzata

Department of Animal Products Technology and Quality Management, Wrocław  
University of Environmental and Life Sciences, Poland  
E-mail: malgorzata.korzeniowska@up.wroc.pl

### **Abstract**

Changing lifestyles over the years has led to the shift toward more convenience in food preparation. Generally, consumers are looking now for relatively cheap, convenient and tasty products. However, still increasing number of people choose “traditional food products”, which are considered to be healthier, of high quality and supportive to the local economy. In light of the European Union legislation “Traditional means proven usage in the community market for a time period showing transmission between generations: this time period should be the one generally ascribed as one human generation, at least 25 years” (EU, 2006). In order to label food product as the traditional it has to be linked to a territory and tradition continue over time, and also prepared from traditional raw materials with traditional composition, processed and stored on a traditional type of production and/or processing according to uniform and constant local use. However, according to Guerrero et. al. (2009) relatively low level of understanding of the traditional and innovation concepts by consumers creates the possibility for further improvement of traditional food products by a. o. enhancing the nutritional value e.g. reducing salt, saturated fat or sugar content, and improving the products’ shelf-life.

Pate is one of the traditional Polish food considered as an added value product with high nutritional and sensory qualities, which has an important gastronomic tradition. Polish meat products are generally rich in fat, which can easily go through oxidation resulted in lower quality and nutritive value. The use of natural antioxidants, as an innovation widely accepted as one of the keys to being successful, can inhibit those deteriorative processes and ensure high quality of the products.

The aim of this study was to evaluate the quality of poultry liver pates processed with plant polyphenolic preparations. The results showed that polyphenolic preparations used in poultry pates technology generated distinct plant taste and smell typical for originated plants. However, the addition of polyphenolic preparations to pates significantly reduced the intensity of rancid taste and smell, even after 15 days of storage. Polyphenolic preparations obtained from hawthorn leaves and buckwheat hulls had positive effects on the quality and oxidative stability of analyzed meat products. Scullcap, walnut and buckwheat preparations negatively changed color of the surface of the product, but did not affect color of the cross-section of the pates. Overall consumers acceptance of turkey pates was worse mainly due to lower acceptability of the color. It can be concluded that polyphenolic preparations obtained from buckwheat hulls and from walnut leaves are excellent sources of antioxidative compounds and can be successfully used, however in strictly limited concentration, in traditional foods to improve quality and stability of the product.

References

1. EU. 2006. Council Regulation (EC) No 509/2006 of 20 March 2006 on agricultural products and foodstuffs as traditional specialties guaranteed. *Official Journal of the European Union* L93/1.
2. Guerrero L., Claret A., Verbeke W., Vanhonacker F., Enderli G., Sulmont-Rossé C., Hersleth M., Dolores Guàrdia M. 2009. Cross-cultural conceptualization of the words Traditional and Innovation in a food context by means of sorting task and hedonic evaluation. *Food Quality and Preference*, 25, 69–78.