

# BIOGRAPHY

22/07/2012



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**Title and name**

Prof. Marina HEINONEN

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**Nationality**

Finnish

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**Panel**

Dietetic Products, Nutrition and Allergies (NDA)

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**Education**

- PhD (Food Chemistry), 1990, University of Helsinki;
  - MS (Food Science & Nutrition), 1986, University of Rhode Island;
  - MSc (Food Chemistry), 1984, University of Helsinki
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**Scientific and risk assessment experience**

- Chemical Food Safety
  - Food chemistry encompassing compositional analysis, characterisation, chemical reactions, and bioactivities of various food constituents
  - Novel Food risk assessment
  - Food additives
  - Oxidation reactions and action of antioxidants such as plant phenolics, carotenoids, and tocopherols, health claims
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**Main scientific publications**

Her main areas of publications are oxidation reactions and action of antioxidants such as plant phenolics, carotenoids, and tocopherols:

Koivumäki, T Gürbüz, G., Poutanen, M., Heinonen, M. 2012. A novel LC-MS application to investigate oxidation of peptides isolated from  $\beta$ -lactoglobulin. J. Agric. Food Chem., 60: 6799-6805.

Kähkönen, M, Kylli, P., Ollilainen, V., Salminen, J.-P., Heinonen, M. 2012. Antioxidant activity of isolated ellagitannins from red raspberries and cloudberries. J. Agric. Food Chem., 60: 1167-1174.

Hollman, PCH, Cassidy, A, Comte, B., Heinonen, M, Richelle, M, Richling, E, Serafini, M, Scalbert, A, Sies, H., Vidry, S. 2011. The biological relevance of direct antioxidant effects of polyphenols for cardiovascular health in humans is not established. J. Nutr. 141: 989S-1009S.

Kylli, P., Nohynek, L., Puupponen-Pimiä, R., Westerlund-Wikström, B., Leppänen, T, Welling, J., Moilanen, E., Heinonen, M. 2011. Lingonberry (*Vaccinium vitis-idaea*) and European cranberry

(Vaccinium microcarpon) proanthocyanidins: isolation, identification and bioactivities. J. Agric. Food Chem., 59: 3373-3384.

Lund, M.N., Heinonen, M., Baron, C.P., Estévez, M. 2010. Protein oxidation in muscle foods: a review. Mol. Nutr. Food Res. , 54: 1-13.

Estévez, M., Ollilainen, V. and Heinonen, M. 2009. Analysis of protein oxidation markers of  $\alpha$ -amino adipic and  $\gamma$ -glutamic semialdehydes in food proteins using liquid chromatography (LC) - electrospray ionization (ESI) – multistage tandem mass spectrometry (MS). J.Agric.Food Chem., 57: 3901-3910.

Nurmi, T., Mursu, J., Heinonen, M., Nurmi, A., Hiltunen, R. & Voutilainen, S. 2009. Metabolism of berry anthocyanins to phenolic acids in human. J. Agric. Food Chem., 57:2274-2281.

Nohynek L. J., Alakomi H.-L., Kähkönen M. P., Heinonen M., Helander I. M., Oksman-Caldentey K.-M. & Puupponen-Pimiä R. H. 2006 Berry phenolics - antimicrobial properties and mechanisms of action against severe human pathogens. Nutr. Cancer, 54: 18-32.

Vuorela, S., Kreander, K., Karonen, M., Nieminen, R., Hämäläinen, M., Galkin, A., Laitinen, L., Salminen, J-P., Moilanen, E., Pihlaja, K., Vuorela, P., Vuorela, H. & Heinonen, M. 2005. Preclinic evaluation of rapeseed, raspberry and pine bark phenolics for health related effects. J. Agric. Food Chem., 53: 5922-593.

Kähkönen, M., Hopia, A., Vuorela, H., Rauha, J.P., Pihlaja, K., Saarni, T. & Heinonen, M. 1999. Antioxidant activity of plant extracts containing phenolic compounds. J.Agric. Food Chem., 47: 3954-3962.

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