

BIOGRAPHY

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Title and name

Dr. Maria Saarela

Nationality

Finland

Panel

FEEDAP

Education

Doctor of Food Sciences, University of Helsinki , 1993

Docent (Lecturer) in microbiology, University of Helsinki, 1995

Scientific and risk assessment experience

- Background in clinical microbiology, especially in oral microbiology
 - During the past 10 years the main areas of research have been lactic acid bacteria (LAB) and bifidobacteria (e.g. safety, including antimicrobial susceptibility; technology; intervention studies) and oro-gastrointestinal microbiota (focus on the main anaerobic groups, but also on bifidobacteria and LAB)
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Main scientific publications

The main areas of publication involve studies related to human microbiota (in connection to pro- and prebiotic interventions or microbiota profiling in health and disease) and LAB/bifidobacteria (characterisation, safety, production technologies, etc).

Saarela M, Mogensen G, Fonden R, Mättö J, Mattila-Sandholm T. 2000. Probiotic bacteria: safety, functional and technological properties. J Biotechnol 84: 197-215.

Saarela M, Mättö J, Mattila-Sandholm T. 2002. Safety aspects of Lactobacillus and Bifidobacterium species originating from human oro-gastrointestinal tract or from probiotic products. Microbial Ecol Health Dis 14: 233-240.

Mättö J, Alakomi H-L, Vaari A, Virkajärvi I, Saarela M. 2006. Influence of processing conditions on Bifidobacterium animalis subsp. lactis functionality with a special focus on acid tolerance and factors affecting it. Int Dairy J 16: 1029-1037.

Mättö J, Suihko M-L, Saarela M. 2006. Comparison of three test media for antimicrobial susceptibility testing of bifidobacteria using the Etest method. *Int J Antimicrob Agents* 28: 42-48.

Saarela M, Maukonen J, von Wright A, Vilpponen-Salmela T, Patterson AJ, Scott KP, Hämynen H, Mättö J. 2007. Tetracycline susceptibility of the ingested *Lactobacillus acidophilus* LaCH-5 and *Bifidobacterium animalis* subsp. *lactis* Bb12 strains during antibiotic/probiotic intervention. *Int J Antimicrob Agents* 29: 271-280.

Mättö J, van Hoek AHAM, Domig KJ, Saarela M, Belen Florez A, Brockmann E, Amtmann E, Mayo B, Aarts HJM, Danielsen M. 2007. Susceptibility of human and probiotic *Bifidobacterium* spp. to selected antibiotics as determined by the Etest method. *Int Dairy J* 17: 1123-1131.

Mättö J, Maukonen J, Alakomi H-L, Suihko M-L, Saarela M. 2008. Influence of oral doxycycline therapy on the diversity and antibiotic susceptibility of human intestinal bifidobacterial population. *J Appl Microbiol* 105: 279-289.

Alakomi H-L, Saarela M. 2009. Salmonella – importance and current status of detection and surveillance methods. *Quality Assurance and Safety of Crops & Foods* 1: 142-152.

Korhonen JM, Van Hoek AHAM, Saarela M, Huys G, Tosi L, Mayrhofer S, von Wright A. 2010. Antimicrobial susceptibility of *Lactobacillus rhamnosus*. *Beneficial Microbes* 1: 75-80.

Saarela M. H. 2010. Safety assessment of bifidobacteria. Chapter 9 in *Bifidobacteria: genomics and molecular aspects*, Horizon Scientific Press, Eds. B. Mayo & D. van Sinderen, in press.

Simoes C, Alakomi H-L, Maukonen J, Saarela M. Expression of *clpL1* and *clpL2* genes in *Lactobacillus rhamnosus* VTT E-97800 after exposure to acid and heat stress treatments or to freeze-drying. *Beneficial Microbes*, 2010: 1: 253-257.

Champagne C, Ross P, Saarela M, Flemming Hansen K, Charalampopoulos D. Recommendations for the viability assessment of probiotics as concentrated cultures and in food matrices, *Int. J. Food Microbiol.* 2011: 149: 185-193.
