Predictive food microbiology tool for risk assessment and documentation of food safety

Period: January 2016 - December 2018
Budget: 2,318,000 DKK
Funding: The Danish Milk Levy Fund
Project manager: Paw Dalgaard
Institution: DTU Food
Collaborators: Jørn Smedsgaard, DTU Food

Aim
Develop a predictive food microbiology tool that allow the growth potential of Listeria monocytogenes to be predicted for a broad range of dairy products.

Description
New predictive models for growth and growth boundary of Listeria monocytogenes will be developed and validated so that they can be used to assist in product development, risk assessment and documentation of safety for dairy products. Available L. monocytogenes models are evaluate and expanded with terms for the effect of several dairy specific antimicrobial ingredients/additives including bacteriocins. An advanced analytical chemistry approach (LC-MS/MS) is used to identify and detect antimicrobials in fermented dairy products. The new and validated L. monocytogenes models are included in software to make them useful for the entire dairy sector.