"PREDICTIVE MICROBIOLOGY MODELLING IN FOODS 2014" is a four-day SUMMER WORKSHOP to provide participants with an excellent opportunity to learn the different approaches to mathematically describe the dynamics of microorganisms in foods.

The OBJECTIVE of the workshop is to provide a clear understanding of how to obtain accurate estimates on growth, death and survival of microorganisms in foods, including food-borne pathogens, as affected by intrinsic food properties and processing environments. The workshop will demonstrate how the current computer programmes of the U.S. Department of Agriculture, Agricultural Research Service, can be used to predict the behaviour of the pathogens in foods.

INSTRUCTORS:
Dr. Vijay Juneja is a world's leading authority in food safety research with emphasis on microbiological safety of minimally processed foods and predictive microbiology. His research programme at the Agricultural Research Service (ARS) branch of the United States Department of Agriculture (USDA) has generated over 140 peer-reviewed journal articles, 9 books and 45 book chapters. Dr. Juneja frequently organizes educational workshops on microbial modelling, specifically on the use of ARS Pathogen Modelling Program.
Dr. Ursula Gonzales-Barron has expertise in food microbial safety modelling including predictive microbiology and risk assessment of pathogens. She has notably advanced the state-of-the-art of food safety modelling by incorporating novel techniques such as count data and zero-inflated regressions, Bayesian analysis, meta-analysis and heterogeneous Poisson acceptance sampling theory. She has over 45 peer-reviewed publications and 8 book chapters.
Prof. Vasco Cadavez has wide experience in the development of statistical and mathematical modelling techniques such as generalised linear mixed models, multivariate analysis, dynamic models, data-mining and meta-analysis in the fields of animal science, agriculture and food safety. He is very knowledgeable in computer programming, and specifically the use of the R software and SQL programming, which he teaches at undergraduate and postgraduate levels.

COURSE METHODOLOGY: The workshop consists of sessions of theory and practice running from the 9th to the 12th September 2014. The practical sessions consist of modelling exercises using the R software, and ready-to-use applications such as the Pathogen Modeling Program (PMP) and ComBase.

LOCATION: The Workshop will take place in the historical and warm city of Braganza, Portugal, at the School of Agriculture of the Polytechnic Institute of Braganza.

FEES: Includes course materials: €500. Students: €400. Maximum number of participants: 25. Registration is <u>required</u> before 30th July.

FURTHER INFORMATION:

http://esa.ipb.pt/predmicro2014/
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