August 30 AM (Fri)
Room A1

Plenary Lecture III

Chair: Cherl-Ho Lee, *Korea University, Korea*

PL -3 11:30-12:20

Is There a Role for Food Science and Technology in Combating Future World Food Crisis?

Walter Spiess, *Karlsruhe University, Germany*

According to the many statistics compiled by FAO, WHO or UNDP and others almost one sixth of the world's population is suffering from hunger and malnutrition; a situation that prevails since many years. This obvious scandal has been recognized by the world public in many ways, the response so far are mainly numerous, resolutions and declarations e.g.>FAO-World Declaration on Nutrition (1992) >, >The United Nations Millennium Development Goals (MDG)(2000) and more recently the > Draft Zero of the Rio+20 United Nations Conference on Sustainable Development, 2012<; not to forget IUFoST's Budapest Declaration in 1996 and Cape Down Declaration in 2010 The commitments made by World Community are clear and measurable, e.g. in Target 1C of the MDG 1it is proclaimed to eradicate extreme poverty and hunger and in detail to >Halve the proportion of people who suffer from hunger < to achieve by the year 2015<. None of those goals have been reached, there have been some successes in certain areas but in other areas the situation is even worse and if projected into the future there is barely any hope that a major world food crisis can be prevented, a crisis which will hit Africa, parts of South East Asia and parts of South America. The reasons for this dramatic failure are certainly manifold; the major reason is without any doubt that the many political statements and declarations for assuring worldwide Food Security if at all have only been half hearted translated into effective actions, partially because of national egoisms, partially because of the protection of vested rights and privileges. Further reasons which hampered progress in coping with the present crisis and the crisis on the horizon are the fact that (agricultural) innovations and development are blocked and food technological measures were considered as less important, prices for staple foods reached dramatic heights and not to forget that inappropriate lifestyles misdirected food production in certain countries. In order cope with future problems in a sustainable way misleading strategies should be readjusted. In this context the almost sole focus on the growth of the agricultural output has to be corrected. Food Science and Technology have to be recognized as important elements to cope successfully with future challenges. Dealing with existing problems like the tremendous losses in the food chain and the utilization of not or under-utilized resources would be first steps out of the present crisis and future crises. Food Science related strategies to cope with future challenges are e.g.: Reduction of Post Harvesting Losses; Improvement of Product Quality; Higher Process Effectiveness; Reduction of Process Impacts on the Environment by a better Utilization of Energy and Water resources; Reduction and Utilization of Processing Waste; Utilization of under or so far not utilized Natural Resources; Improvement of Storage and Distribution/Retailing Strategies. Major potential contributions of Food Science and Technology to cope with future problems will be discussed in detail.