

# International Conference and Exhibition on **Biopolymers & Bioplastics**

August 10-12, 2015 San Francisco, USA

## **New development of application of nanocellulose for food packaging application**

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Global environmental concern, regarding the use of petroleum-based packaging materials, is encouraging researchers and industries in the search for packaging materials from natural biopolymers. Bioactive packaging is gaining more and more interest not only due to its environment friendly nature but also due to its potential to improve food quality and safety during packaging. Some of the shortcomings of biopolymers, such as weak mechanical and barrier properties can be significantly enhanced by the use of nanomaterials such as crystalline nanocellulose (CNC). The use of CNC can also extend the food shelf life and improve the food quality as they can serve as carriers of some active substances, such as antioxidants and antimicrobials. The CNC fiber-based composites have great potential in the preparation of cheap, lightweight, and very strong nanocomposites for food packaging. During this conference, the potential of the use and application of CNC fiber-based nanocomposites for the development of bioactive packaging based nanocomposite with different polymers like methylcellulose, chitosan, poly ( $\epsilon$ -caprolactone), polylactic acid-nanocrystalline cellulose (PLA-NCC) supramolecular will be presented. The one or bilayer active nanocomposite films for their potential to eliminate pathogens in ready to eat vegetables and meat or the efficiency of the nanocomposite films for the preservation of the viability of probiotic bacteria will be included in this presentation.

### **Biography**

Monique Lacroix has completed a BSc and MSc in Food Sciences Technology in 1980 and 1982 respectively and a PhD in Nutrition in 1986. She is full Professor at INRS-Institut Armand-Frappier, Laval, Québec, Canada and Director of the Research Laboratories in Sciences Applied to Food and of the Canadian Irradiation Centre. She is Fellow of the International Academy of Food Science and Technology (IAFoST). According to the ISI Essential Science Indicators web product, her work garnered the highest percent increase of total citations in Agricultural Sciences in 2005. She is author of 225 publications, 10 patents and 18 book chapters.

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