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Degree: B.S, M.S, PhD (Food Technology)



Research Profile

My research currently focuses on characterising future carbohydrates to develop novel and healthy food products. I lead several research projects on potatoes, starch, cereals and supervise graduate and post graduate students at the Riddet Institute. I have published research papers in international journals, written book chapters and presented my work at international conferences. Also, I have edited a 528 page book entitled “[Advances in Potato Chemistry and Technology](#)”, (June, 2009) published by Elsevier-Academic Press, USA. I am the Consulting Editor and Editorial Board Member: International Journal of Vegetable Science (Taylor & Francis, UK); Processing editor and Editorial Board Member: Potato Research (Springer, UK).

Major Research Area: Functional Food Chemistry with following special interests:

Starch structure and digestibility; Development of novel starch structure having functional characteristics such as slow digestibility; Development of novel food matrix to slow down the starch digestibility and enhance satiety during digestion; Food product development based on novel starch structures; Screening novel starch sources having functional characteristics; Potato tuber microstructure and its relationship with digestibility (low calorie potatoes)

Selected Publications

- **Jaspreet Singh** and Lovedeep Kaur, Editors (2009). [Advances in Potato Chemistry and Technology](#). Editors; J. Singh and L. Kaur, Elsevier (Elsevier-Academic Press), USA. (Hard cover 528 pages).
- **Jaspreet Singh**, Anne Dartois, and Lovedeep Kaur (2010). Starch digestibility in food matrix: a review. [Trends in Food Science and Technology](#), 21, 168-180.
- Anne Dartois, **Jaspreet Singh**, Lovedeep Kaur and Harjinder Singh (2010). Influence of guar gum on the In vitro starch digestibility- rheological and microstructural characteristics. [Food Biophysics](#), 5, 149-160.
- **Jaspreet Singh**, Lovedeep Kaur and Owen J McCarthy (2007). Factors influencing the physico-chemical, morphological, thermal and rheological properties of some chemically modified starches for food applications – A review. [Food Hydrocolloids](#) 21, 1-22.
- **Jaspreet Singh**, Owen J McCarthy and Harjinder Singh (2006). Physico-chemical and morphological characteristics of New Zealand *Taewa* (Maori potato) starches. [Carbohydrate Polymers](#), 64, 569-581.

Awards and Honours

- Post Doctoral Fellowships at Institut National de la Recherche Agronomique (INRA), France and Kansas State University, Manhattan (KS), USA
- Massey University College Research Award – Early Career (2006)
- [Managing Guest Editor – Food Chemistry \(Elsevier\) Special issue: Advances in Potato Chemistry, Nutrition and Technology](#)
- [Featured at SciTopics \(Research Summaries by Experts\) Elsevier](#)
- [Biotechnology Learning Hub Interview \(Focus story on New Zealand Taewa\)](#)