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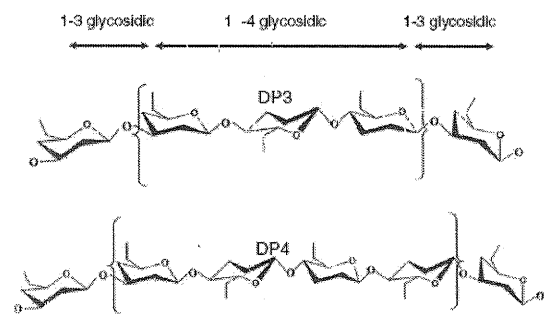
# *In vitro* digestion of beta glucan enriched pasta and antioxidant potential of digesta

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(1→3-1→4) Beta glucan is a linear polysaccharide endowed with a wide range of health benefits including lowering serum cholesterol, regulating blood glucose levels and conferring anti-cancer activities.[1] For this reason there has been a growing interest in beta glucan enriched food. A simulated oral, gastric and small intestinal digestion [2] of pasta enriched with 5% beta glucan was performed in order to assess the influence of pH and matrix enzyme degradation on stability and bioaccessibility of the polysaccharide. Beta glucans were assayed in post oral, post gastric and post intestinal (PI) digesta. Water soluble fraction (bioaccessible) derived from PI ultracentrifugation was isolated and its antioxidant capacity was studied through ABTS cation radical decoloration and Folin assays. With respect to not enriched pasta, the bioaccessible fraction of the beta glucan enriched one showed an antioxidant capacity 20% higher. Further details and results will be discussed.



[1] B. S. Ghotra, T. Vasanthan and F. Temelli *Food Research International*, 2008, **41**, 957-963.

[2] L. Tesoriere, M. Fazzari, F. Angileri, C. Gentile and M. A. Livrea *J. Agric. Food Chem.*, 2008, **56**, 10487-10492.