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## The effect of fruit sorbet enriched in yacon (*Smallanthus sonchifolius*) fructans on the total calcium blood level in growing rats

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Yacon (*Smallanthus sonchifolius*) is an Andean tuberous root that is regarded as a functional food given that it contains fructans. There are evidences that fructans-non-digestible carbohydrates enhance mineral (especially calcium) absorption and thus may play important role in the prevention of osteoporosis. The next issue is that fruit products are becoming an important part of the modern diet in many communities. Despite of fresh fruits, several types of preserves are popular. One of them are fruit sorbets. This is why the aim of our study was to assess the total Ca content in the blood serum of growing rats fed calcium-deficient diet with the addition or not sorbet containing yacon root powder as a source of fructans. Animals i.e., female Wistar rats had a free access to deionised water and the modified AIN<sup>93</sup> G diet containing a strawberry sorbet produced with yacon (calculated to provide 8% of fructans in rat diet). After 12 weeks of feeding the rats were euthanized. The measurements of total calcium level in serum were performed using BS 120 analyzer. The results demonstrated the Ca concentration in rat serum was decreased after consuming of sorbets containing yacon as compared to the control group, however the changes were not statistically significant. Further studies are needed to assess the potential of fructans from yacon as the ingredients for functional food, what is especially important for those population groups where the calcium consumption is insufficient.

### Biography

Kinga Topolska has completed her PhD from University of Agriculture in Krakow. Her main scientific interests are functional foods and osteoporosis as well as nutritional education.

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