

RESEARCH PROJECT

 Institute
Life Technologies

Controlled manufacture of foods based on goji berries. (Qualfood)

Partner(s) Financial partner: HES-SO, Field “Engineering and architecture”
Thematic programme: “Healthfood”

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J. Ducruet (main applicant), School of Engineering Changins (EIC)

Description Plant-based **raw materials** are sensible to spoilage. Therefore, a rapid preservation and/or transformation are needed. A preservation by chilling, storing under controlled atmosphere or freezing, is costly and requires a lot of energy. Therefore, this project is focusing on the cheaper transformation processes, drying and juicing.

Goji berries are considered as new kinds of superfruit, since they are rich in beneficial bioactives. The plant raw material will be evaluated for these **bioactives**. Marker compounds are tracked and quantified during all drying and juicing process steps. Yields will be evaluated due to mass and energy balances. Critical process steps will be optimized for a preservation of beneficial ingredients.

The aim is not to produce functional food, since it is difficult and expensive to get a health claim accepted. The work is directed towards appropriate information of the consumer about the quality of the product.

A. Kosińska-Cagnazzo, B. Weber, R. Chablais, J.F. Vouillamoz, B. Molnár, J. Crovadore, F. Lefort, W. Andlauer: Bioactive compound profile and antioxidant activity of fruits from six goji cultivars cultivated in Switzerland. Journal of Berry Research 2017 (7) accepted.

J. Ducruet, P. Rébénague, S. Diserens, A. Kosińska-Cagnazzo, I. Héritier, W. Andlauer: Amber ale beer enriched with goji berries – the effect on bioactive compound content and sensorial properties, Food Chemistry, accepted.

A. Kosińska-Cagnazzo, D. Bocquel, I. Héritier, W. Andlauer: Goji berry enrichment of extruded products – antioxidant activity and bioactive compounds content, Food Chemistry, submitted.

URL <http://itv.hevs.ch/>

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