Laura Rubió Piqué

Assistant professor

Personal data

Area of expertise: Nutrition and Bromatology

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Academic background

PhD in Agricultural and Food Science and Technology, from the University of Lleida (2014)

Master of Research in Agri-Food Production Systems, from the University of Lleida (2011)

Degree in Food Science and Technology, from the University of Lleida (2010)

Diploma in Human Nutrition and Dietetics, from Rovira i Virgili University (2007)

Teaching

Currently teaching in the following programmes:

Double Degree in Human Nutrition and Dietetics and Physiotherapy (Igualada Campus):

- Nutrition (code 100616-I)
- Bromatology (code 100608-I)
- Nutritional Status Assessment (code 100640-I)

Research

Main research lines:

- Improving the quality and development of food products. Development of new ingredients and foods that are healthy and accepted by consumers.

- Development and validation of methodologies for the analysis of bioactive compounds (phenols, vitamins and fibers) in food ingredients and food preparations.

- Study of the digestibility, metabolism and bioavailability of bioactive food compounds: in vitro models of colonic digestion and fermentation, cellular models, animal experimentation and postprandial studies in humans.

- Development and validation of methods for the analysis of bioactive compounds and their metabolites in biological fluids and tissues.

Most relevant publications in the last 5 years:

- Calderón-Pérez, L., Gosalbes, M.J., Yuste, S., Valls, R.M., Pedret, A., Llauradó, E., Jimenez-Hernandez, N., Artacho, A., Pla-Pagà, L., Companys, J., Ludwig, I., Romero, M.-P., **Rubió, L.*,** Solà, R. (*corresponding author). Gut metagenomic and short chain fatty acids signature in hypertension: a cross-sectional study. (**2020**) Scientific Reports, 10 (1), art. no. 6436. DOI: 10.1038/s41598-020-63475-w
- Yuste, S., Macià, A., Ludwig, I.A., Romero, M.-P., Fernández-Castillejo, S., Catalán, Ú., Motilva, M.-J., **Rubió, L***. (*corresponding author). Validation of Dried Blood Spot Cards to Determine Apple Phenolic Metabolites in Human Blood and Plasma After an Acute Intake of Red-Fleshed Apple Snack. (**2018**) Molecular Nutrition and Food Research, 62 (23), art. no. 1800623, . Cited 2 times. DOI: 10.1002/mnfr.201800623
- Catalán, Ú., López de las Hazas, M.-C., Piñol, C., **Rubió, L.*,** Motilva, M.-J., Fernandez-Castillejo, S., Solà, R. (*corresponding author). Hydroxytyrosol and its main plasma circulating metabolites attenuate the initial steps of atherosclerosis through inhibition of the MAPK pathway. **(2018**) Journal of Functional Foods, 40, pp. 280-291.
- De las Hazas, M.C.L., **Rubió, L**., Macià, A., Motilva, M.J. Hydroxytyrosol: Emerging trends in potential therapeutic Applications. (2018) Current Pharmaceutical Design, 24 (19), pp. 2157-2179.
- Farràs, M., Fernández-Castillejo, S., **Rubió, L.,** Arranz, S., Catalán, Ú., Subirana, I., Romero, M.-P., Castañer, O., Pedret, A., Blanchart, G., Muñoz-Aguayo, D., Schröder, H., Covas, M.-I., de la Torre, R., Motilva, M.-J., Solà, R., Fitó, M. Phenol-enriched olive oils improve HDL antioxidant content in hypercholesterolemic subjects. A randomized, double-blind, cross-over, controlled trial (2018) Journal of Nutritional Biochemistry, 51, pp. 99-104.
- Valls, R.-M., Farràs, M., Pedret, A., Fernández-Castillejo, S., Catalán, Ú., Romeu, M., Giralt, M., Sáez, G.-T., Fitó, M., de la Torre, R., Covas, M.-I., Motilva, M.-J., Solà, R., **Rubió, L**. Virgin olive oil enriched with its own phenolic compounds or complemented with thyme improves endothelial function: The potential role of plasmatic fat-soluble vitamins. A double blind, randomized, controlled, cross-over clinical trial (2017) Journal of Functional Foods, 28, pp. 285-292.
- Catalán, Ú., **Rubió, L**., López de Las Hazas, M.C., Herrero, P., Nadal, P., Canela, N., Pedret, A., Motilva, M.J., Solà, R. Hydroxytyrosol and its complex forms (secoiridoids) modulate aorta and heart proteome in healthy rats: Potential cardio-protective effects (2016) Molecular nutrition & food research, 60 (10), pp. 2114-2129.
- López de las Hazas, M.C., Piñol, C., Macià, A., Romero, M.P., Pedret, A., Solà, R., **Rubió, L**.*, Motilva, M.J. (*corresponding author). Differential absorption and metabolism of hydroxytyrosol and its precursors oleuropein and secoiridoids (2016) Journal of Functional Foods, 22, pp. 52-63.
- Motilva, M.-J., Serra, A., **Rubió, L**. Nutrikinetic studies of food bioactive compounds: From in vitro to in vivo approaches (2015) International Journal of Food Sciences and Nutrition, 66, pp. S41-S52.
- Mosele, J.I., Macià, A., Romero, M.-P., Motilva, M.-J., **Rubió, L***. (*corresponding author) Application of in vitro gastrointestinal digestion and colonic fermentation models to pomegranate products (juice, pulp and peel extract) to study the stability and catabolism of phenolic compounds (2015) Journal of Functional Foods, 14, pp. 529-540

Other information of interest

- Post-doctoral researcher (2015-2018) and current collaborator in the NFOC-SALUT [https://www.nfocsalut.com/] Research Group (Functional Nutrition, Oxidation and Cardiovascular Diseases) of the Universitat Rovira I Virgili and the Pere Virgili Health Research Institute.

- Member of the *Antioxidants Research Group* [http://www.antioxidants.udl.cat/html/en/index.html] at the University of Lleida. Coordinator of the Nutrition Research Lines. (http://www.antioxidants.udl.cat).

- Member of the group “Antioxidants and Vegetal Products Technology” in CCNIEC [https://www.ccniec.cat/fitxa-grup/grup-de-recerca-antioxidants-tecnologia-de-productes-vegetals/] (Centre Català de la Nutrició de L’Institut d’Estudis Catalans).

- Member of the consolidated research group "Plant Product Technology Unit" of the University of Lleida.

- Research member of Agrotecnio (Agrotechnology Research Center) forming part of the Food Bioactive Compounds group [http://www.agrotecnio.org/research-groups/food-bioactive-compounds/].