
24-month post-doctoral position

Optimization and *in vitro* digestion of dairy matrices adapted to the needs of older adults - INRAE (Rennes)

Undernutrition in older adults has a large impact on their quality of life, development of diseases and life expectancy. The transnational EAT4AGE project, funded through the JPI *a healthy diet for a healthy life*, will investigate how food reformulation can be used to combat undernutrition and improve the health of older people.

Within this project, the INRAE research unit STLO will develop dairy matrices with high sensory acceptability and optimized nutrient bioavailability along the digestive tract. We are looking for a post-doctoral candidate with expertise in food (dairy) science and *in vitro* digestion, to conduct the following tasks:

- Optimization of whey-based matrices. Matrices previously developed (Lorieau *et al.*, 2018, *Food hydrocolloids* 82: 399-411) will be improved in terms of structure, texture and sensory acceptability through modification of various processing parameters (e.g. heat treatment, homogenization of incorporated fat, use of aromas...)
- Adaptation of static and dynamic digestion models to the specificities of older adults
- Determination of the impact of the matrix and the food bolus properties on nutrient release during the digestion process

STLO is fully equipped with the necessary equipment to perform the research, including a newly acquired type of dynamic digestion simulator mimicking the stomach contractions and the peristalsis occurring in the small intestine, unique in Europe.

Start date: September 2021

Gross monthly salary: 2400-2900 €, depending on level of experience

If you are interested, please send your application (cover letter, CV including list of publications, names of two references) to:

Didier Dupont (didier.dupont@inrae.fr)

Martine Morzel (martine.morzel@inrae.fr)

You can find additional information on the EAT4AGE project by visiting the website <https://nofima.no/en/project/eat4age/>