

## Biomarkers assisted-predictions of feed efficiency and their main determinants in cattle

### Webinar

**26<sup>th</sup> November 2021 – 10.00 : 15.00 (CET Time Zone)**

*Major interest of research around biomarkers of feed efficiency (and its determinants) in cattle is to increase the phenotyping on a routine basis or for experimental purposes while limiting constraints on animals. This webinar will present state of the art on some biomarkers to predict feed efficiency, digestibility and methane emissions in cattle. The potential of prediction of biomarkers will be presented by considering the mode of construction of the models, their domain of validity, accuracy and precision at the herd and individual levels.*

### Target participants

Scientists, RI technicians, R&D stakeholders  
Bachelor, Master or PhD students

### Objectives

- Explain the principle by which some biomarkers could be related to feed efficiency and its determinants (nitrogen partitioning, digestibility and methane emissions)
- Get an overview of the main laboratory steps needed for biomarkers analysis
- Understand the advantages, limits and the conditions of use of biomarkers to predict feed efficiency and their determinants at the herd and individual level in cattle.

**Pre requisite skills:** Knowledge on ruminant digestion and metabolism

### Program

- 10.00 - 11.30: Biomarkers to predict feed efficiency in beef and dairy cattle, by Gonzalo Cantalapiedra (INRAE) et al
- 13.30 - 15.00: Potential of fecal NIR spectra to predict total tract digestibility and enteric methane emissions in cattle, by Donato Andueza (INRAE) et al

### Organizing center

INRAE, UMR Herbivores, Saint-Genès-Champagnelle, France

**Ref. BIOM**