



**HAL**  
open science

## The cheese matrix modulates the immunomodulatory properties of *P. freudenreichii* CIRM-BIA 129 in healthy piglets

Houem Rabah, Stéphanie Ferret-Bernard, Romain Jeantet, Song Huang, Laurence Le Normand, Fabien Cousin, Floriane Gaucher, Gaëlle Boudry, Gwénaél Jan

### ► To cite this version:

Houem Rabah, Stéphanie Ferret-Bernard, Romain Jeantet, Song Huang, Laurence Le Normand, et al.. The cheese matrix modulates the immunomodulatory properties of *P. freudenreichii* CIRM-BIA 129 in healthy piglets. IDF World Dairy Summit 2018, Oct 2018, Daejeon, North Korea. , 2018. hal-01908159

**HAL Id: hal-01908159**

**<https://hal.science/hal-01908159>**

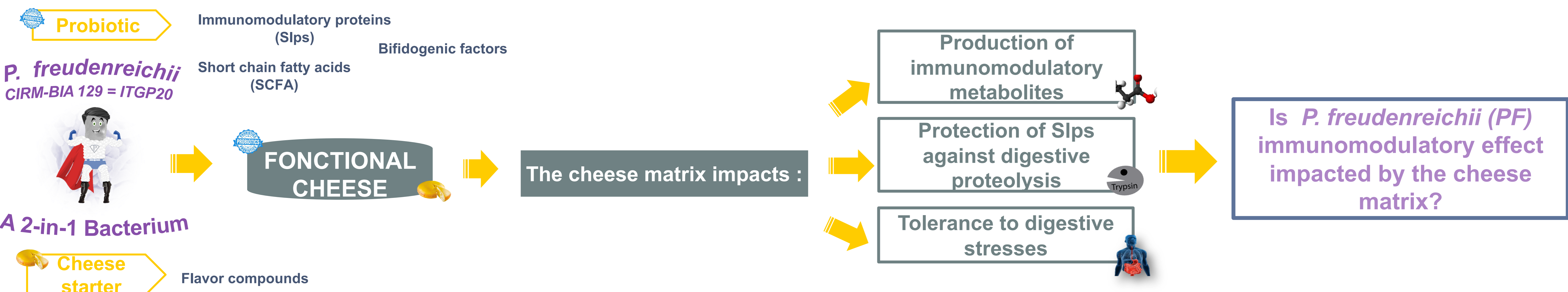
Submitted on 29 Oct 2018

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

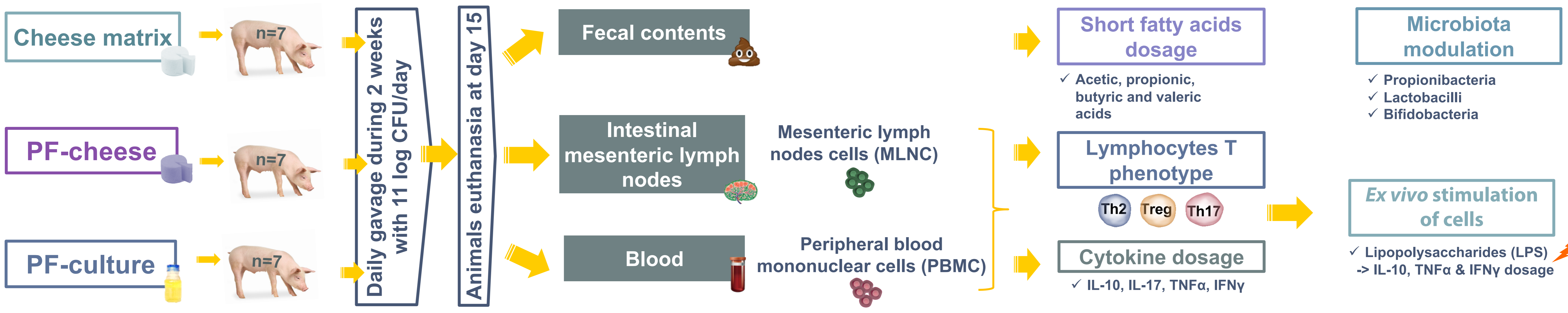
L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



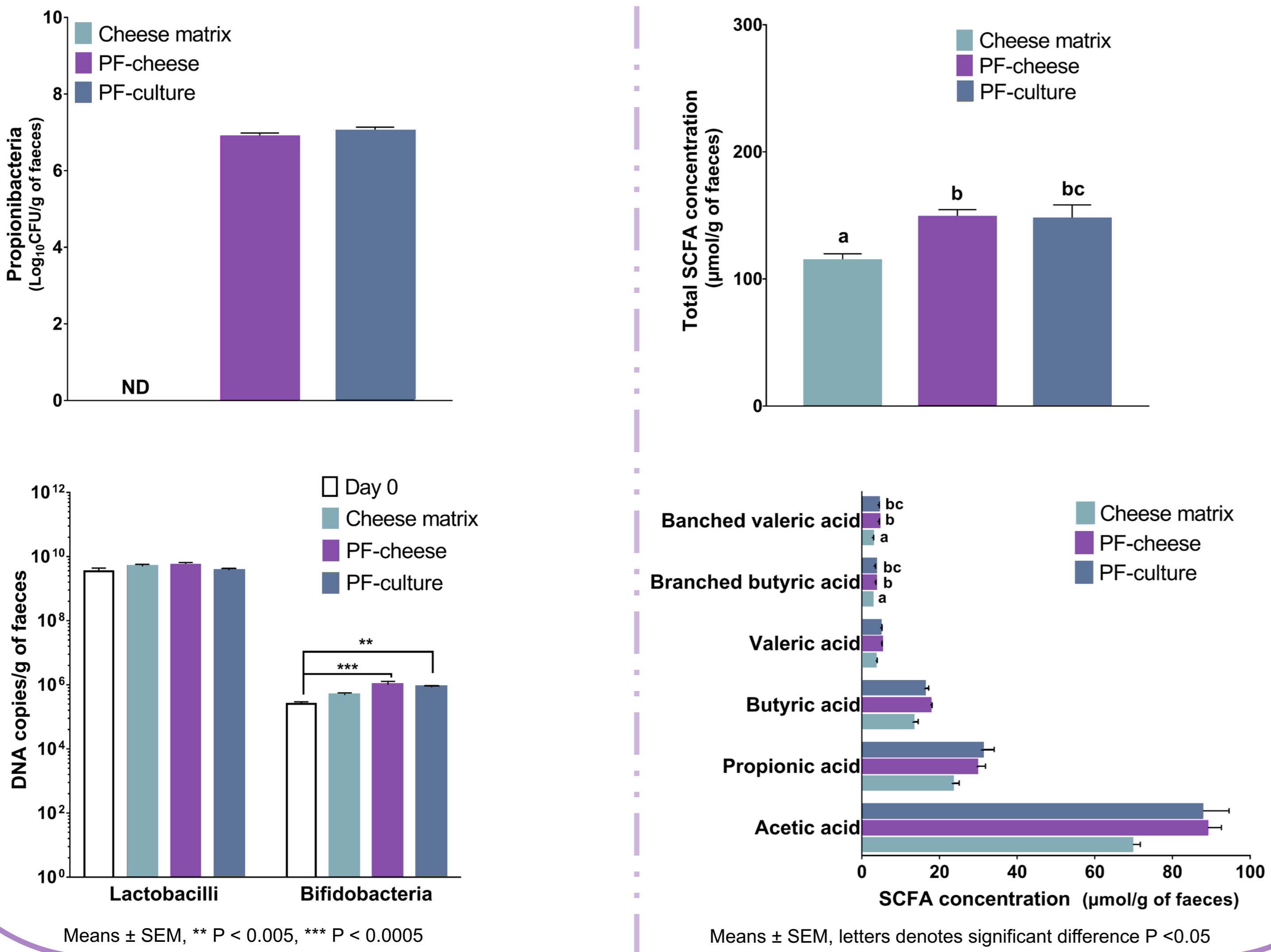
CONTEXT



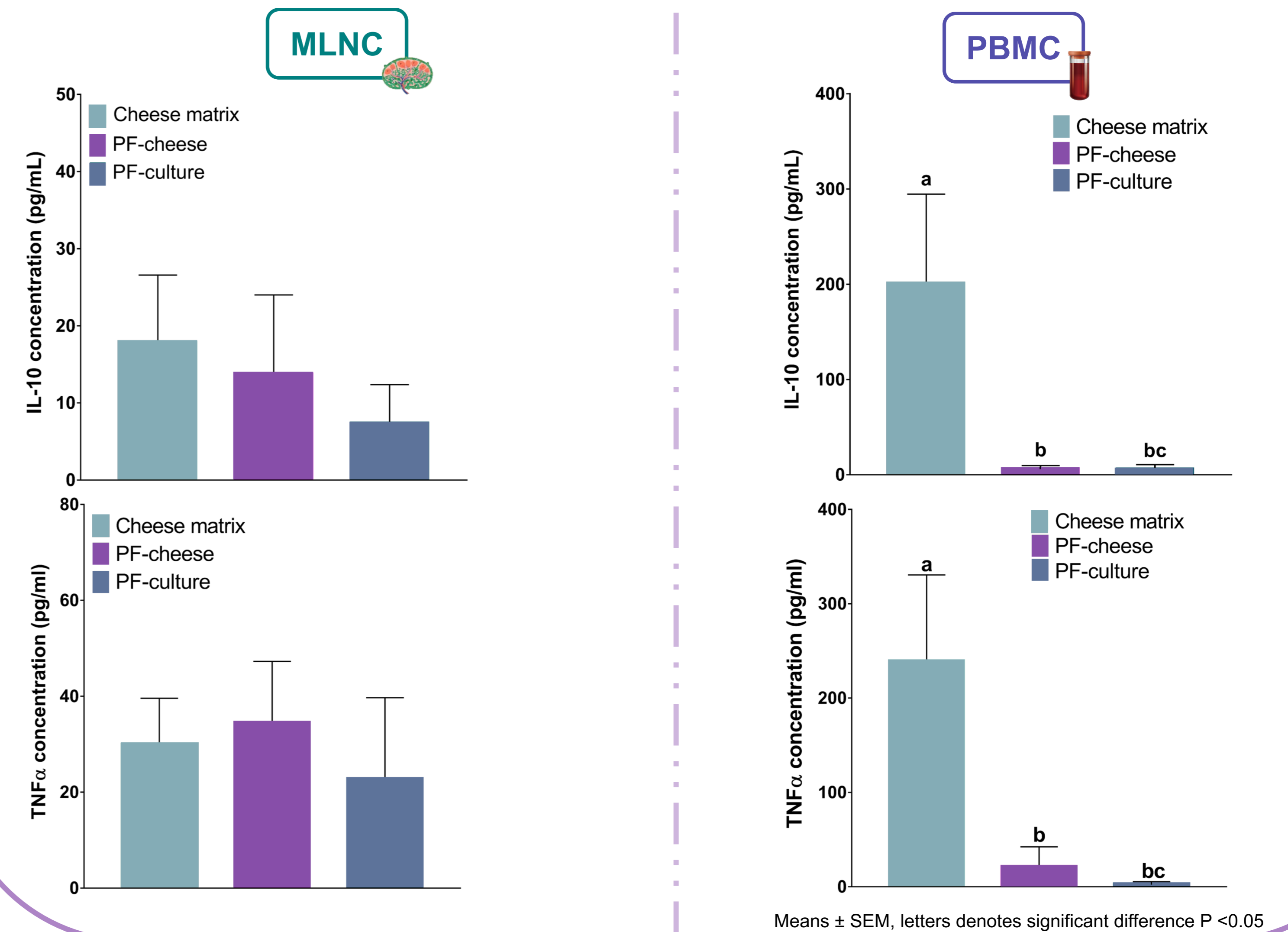
STRATEGY



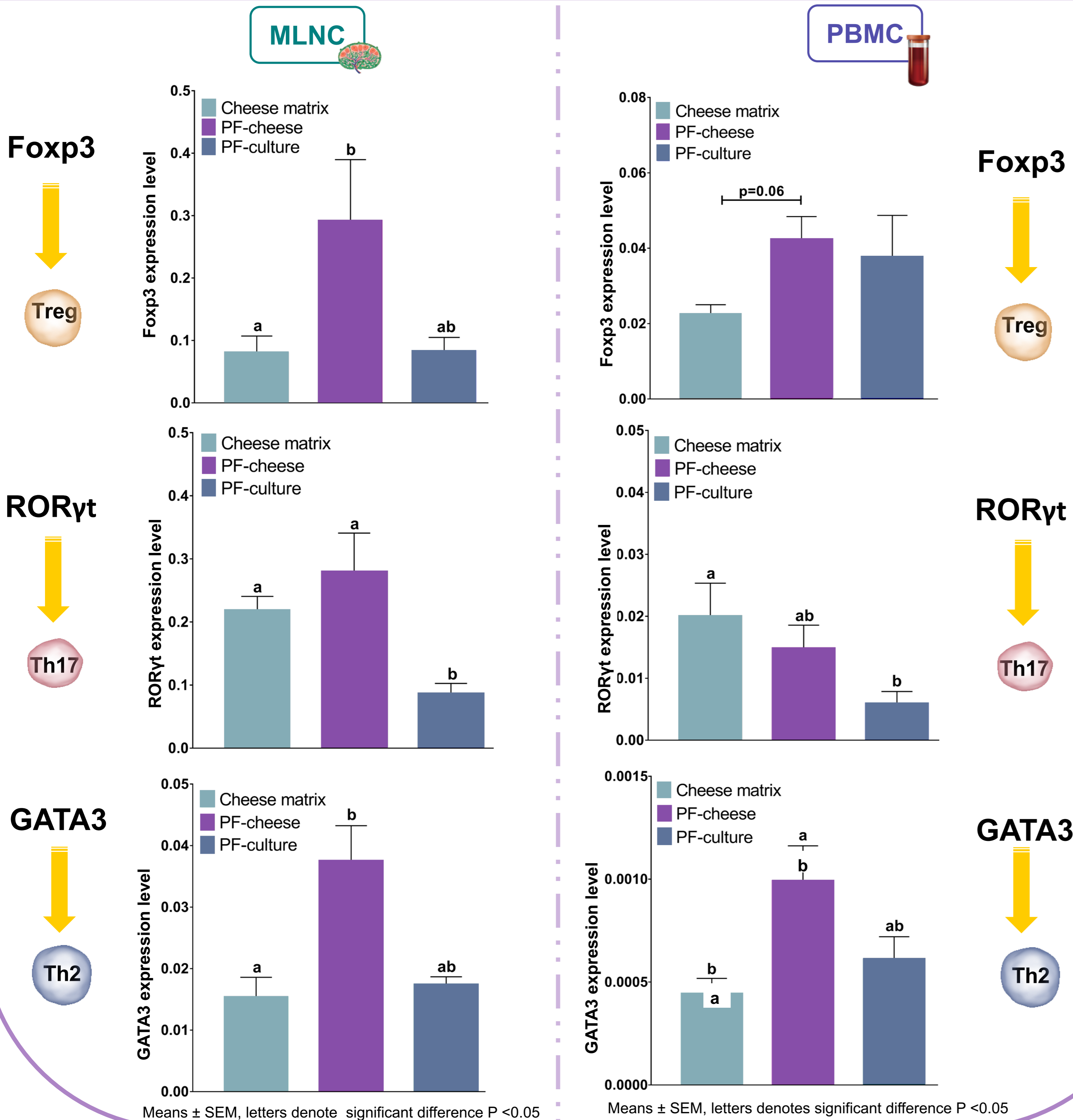
### Both PF-culture and PF-cheese delivered the same amount of metabolically active PF in piglets' colon



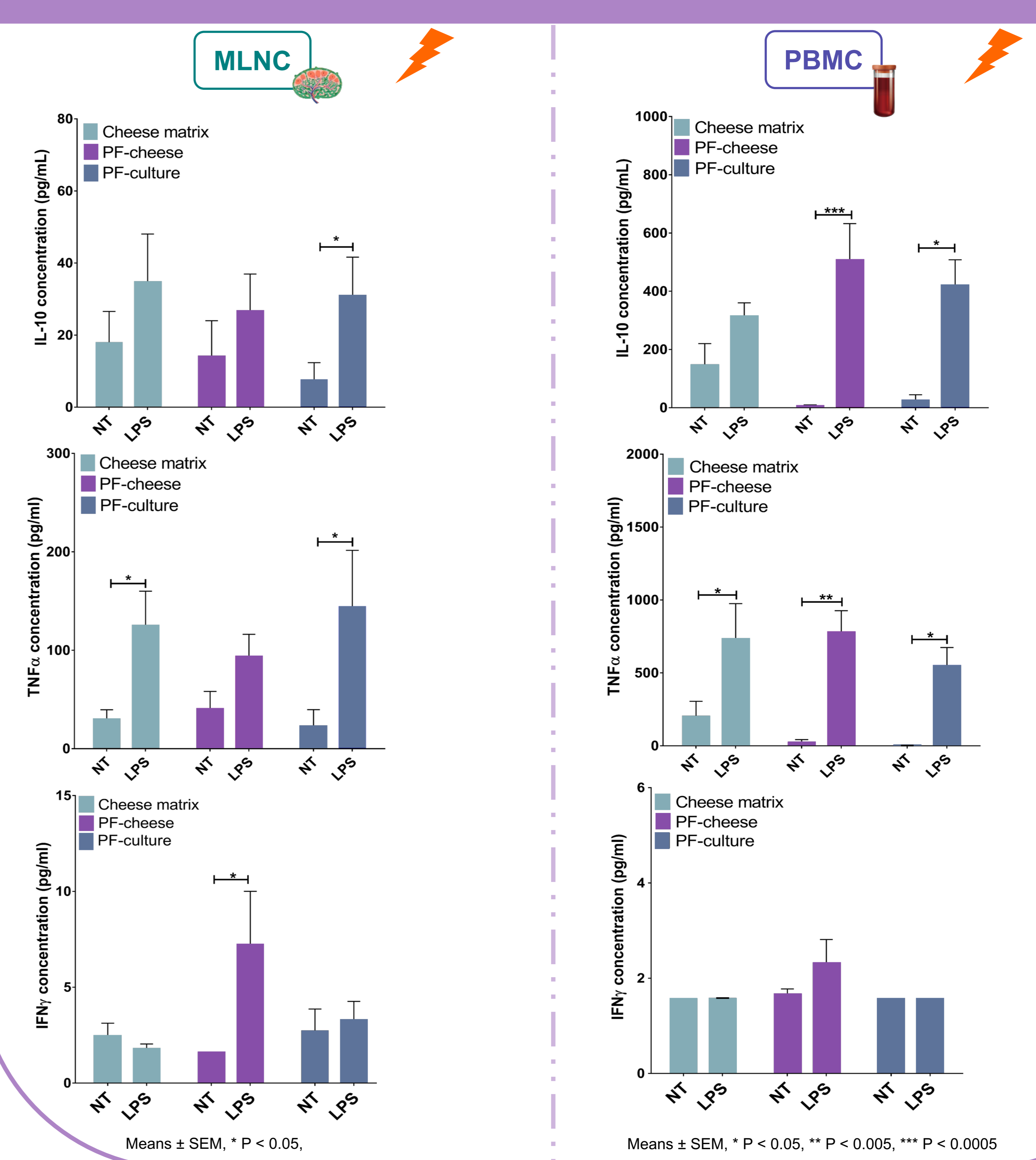
### PF ingestion decreased TNFα and IL-10 secretion only in PBMC, whatever the delivery vehicle of PF



### PF-cheese enhanced Treg and Th2 populations and PF-culture decreased Th17 population, compared to the control group



### Ex vivo response of MLNC to LPS stimulation was different according to the delivery vehicle of PF



The cheese matrix did not enhance the amount of metabolically active PF in piglets colon compared to a bacterial culture. However the functional cheese immunomodulated differently intestinal and systemic immunity compared to PF-culture. We hypothesized this could be due to a difference in surface compounds, such as the immunomodulatory surface layer proteins Slps