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Lactococcus lactis, an attractive bacterium for expression and functional characterization of membrane proteins**Frelet-Barrand Annie**

FEMTO-ST Institute, France

Membrane proteins play key roles in most crucial cellular processes, ranging from cell-to-cell communication to signaling processes. Despite recent improvements, the expression of functionally folded membrane proteins in sufficient amounts for functional and structural characterization remains a challenge. Indeed, it is still difficult to predict whether a protein can be overproduced in a functional state in some expression system(s), though studies of high-throughput screens have been published

in recent years. Prokaryotic expression systems present several advantages over eukaryotic ones. Among them, *Lactococcus lactis* (*L. lactis*) has emerged in the last two decades as a good alternative expression system to *E. coli*. The purpose here is to describe *L. lactis* and its tightly inducible system, NICE, for the effective expression and functional characterization of membrane proteins from both prokaryotic and eukaryotic origins.

e: annie.frelet-barrand@femto-st.fr