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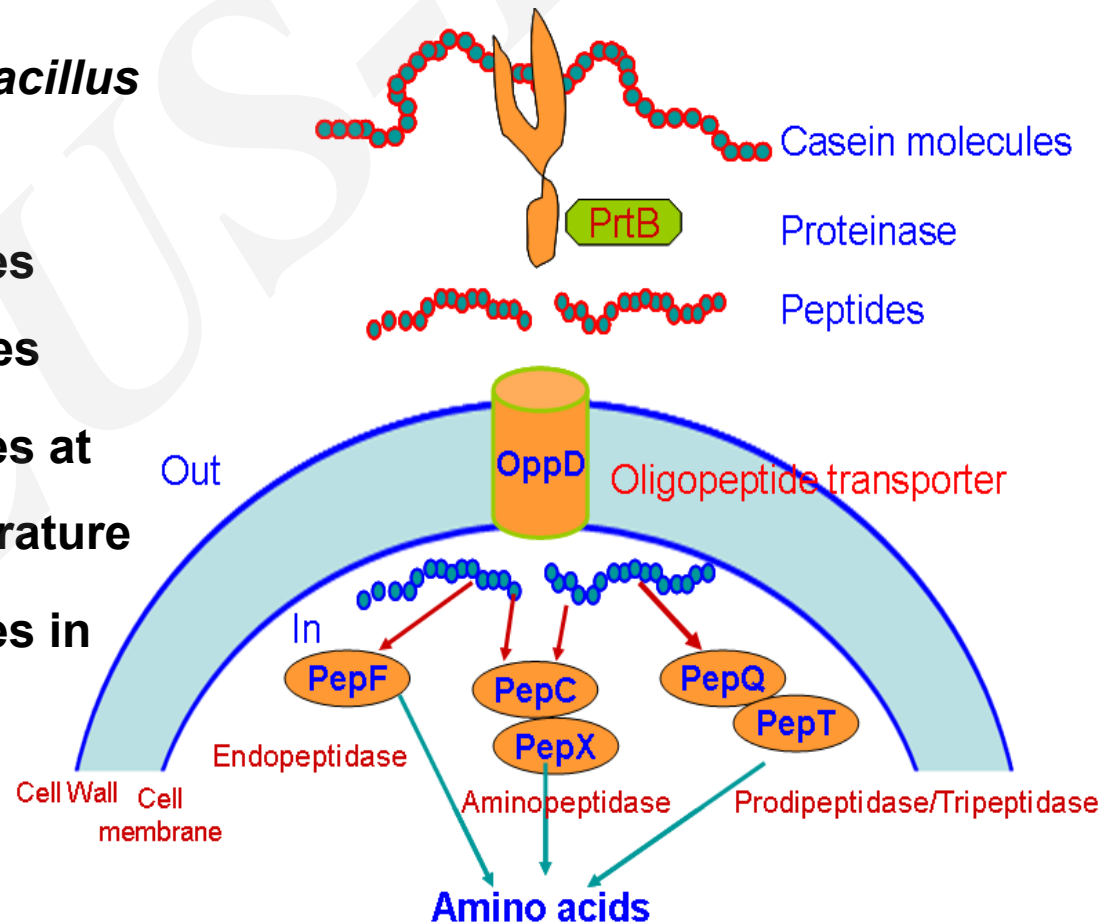
**Effect of culturing conditions on the expression
of key enzymes in the proteolytic system of
*Lactobacillus bulgaricus***

Key words: Gene expression, Proteolytic system,
Lactobacillus bulgaricus, Proteases

Research Summary

The aim of this study was to determine the expression of seven key genes in the proteolytic system under different culturing conditions (different phase, initial pH, temperature and nitrogen source) using RT-PCR.

- Proteolytic activity of *Lactobacillus bulgaricus*
- Expression of the target genes during different growth phases
- Expression of the target genes at different initial pH and temperature
- Expression of the target genes in MRS with different nitrogen sources



Innovation points

A series of tables and figures were generated to summarize the results of this study.

Table 1 | *The lactobacillus bulgaricus strains*

Table 2 | Oligonucleotide pairs used for determining gene expression of *lactobacillus bulgaricus*

Table 3 | Expression of the genes related to peptide transport and hydrolysis in *lactobacillus bulgaricus* during growth in MRS medium.

Figure 1 | Expression of the target genes in *Lactobacillus bulgaricus* during different growth phases

Figure 2 | Expression of the target genes at different initial pH.

Figure 3 | Expressions of the target genes at the different culturing temperature.

Figure 4 | Expressions of the target genes in the normal MRS without additives or the MRS containing peptone.