Endopeptidases from *L. helveticus* Remove Bitterness in Cheese and Treat Gluten Intolerance

View U.S. Patent No. 7,741,438 in PDF format.

WARF: P03299US

Inventors: James Steele, Jeffery Broadbent, Vidya Sridhar

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing endopeptidase enzymes from *L. helveticus* that cleave bitter peptides and peptides involved in gluten inflammation.

Overview

Bitterness and off-flavors often develop in cheese during the aging process. One method of reducing bitterness is to add *Lactobacillus helveticus* to the cheese; however, this step makes cheese more expensive and introduces other flavors into the cheese.

The Invention

UW-Madison researchers have developed endopeptidase enzymes from *L. helveticus* that cleave bitter peptides and peptides involved in gluten inflammation. The enzymes, which were identified from a genomic library of *L. helveticus*, may be added to cheese or other foods during processing. They can be used for reducing bitterness in foods, particularly cheese, or for treating or preventing celiac sprue (gluten intolerance).

Applications

- Removes bitterness in cheese and other foods
- Reducing gluten intolerance

Key Benefits

- May eliminate need to add additional *L. helveticus* to cheese, thus minimizing undesired flavors
- May increase the nutritional content of food by hydrolyzing proline-containing proteins, which are resistant to peptidases found in animals

Tech Fields

- Animals, Agriculture & Food : Food ingredients & additives

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842