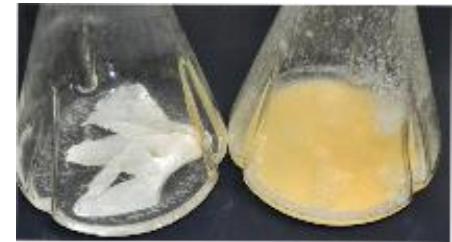


To develop an enzymatic degradation system for rubber wastes including poly(*cis*-1,4-isoprene), an efficient production system for poly(*cis*-1,4-isoprene) degrading enzymes (LCP) will be constructed.

**1) Efficient production of LCP:** To achieve highly efficient LCP production, the recombinant strain will be constructed by genetic modification of the LCP expression and secretory systems.

**2) Activation and stabilization of LCP enzyme:** To develop a high-performance LCP, modification of the optimum temperature and improvement of the stability of LCP will be performed by substitution of amino acid residues based on three-dimensional structure information of the protein.



Biodegradation of latex gloves by natural rubber degrading bacteria

