

**LAPORAN HASIL PENELITIAN
STRANAS**



**Prospek Probiotik Dalam Pencegahan Agresifitas Resorpsi Osteoklastik Tulang Alveolar
Yang Diinduksi Lipopolisakarida (Lps) Pada Penyakit Periodontal**

Peneliti :

M. Nurul Amin

Desi Sandra Sari

Zahara Meilawaty

(Sumber Dana : Penelitian STRANAS DP2M Dikti Tahun 2010, DIPA Universitas Jember Tahun Anggaran 2010
Nomor: 0106/023-04.2/XV/2010 tanggal 31 Desember 2009)

**FAKULTAS KEDOKTERAN GIGI
UNIVERSITAS JEMBER**

2010

Katalog Abstrak : A2010001

Prospek Probiotik Dalam Pencegahan Agresifitas Resorpsi Osteoklastik Tulang Alveolar Yang Diinduksi Lipopolisakarida (Lps) Pada Penyakit Periodontal

(Sumber Dana : Penelitian STRANAS DP2M Dikti Tahun 2010, DIPA Universitas Jember Tahun Anggaran 2010 Nomor: 0106/023-04.2/XV/2010 tanggal 31 Desember 2009)

Peneliti : *M. Nurul Amin, Desi Sandra Sari, Zahara Meilawaty (Fakultas Kedokteran Gigi Universitas Jember)*

ABSTRAK

The purpose of this study was to determine the role of probiotics in inhibiting the activity of pathogenic bacteria oral cavity. Long-term goal is to deliver the probiotic bacteria that inhibit the bone resorption induced by pathogenic bacteria in the oral cavity. The output of this research is the appropriate concentration of probiotic bacteria and probiotic potential of the right order. This method is expected to be used for prevention and treatment of periodontal disease which is still complex and derived products with high quality probiotics. The main product is the development potential of probiotics in maintaining oral health, especially periodontal disease more effectively and efficiently. This study using rats and divided into 4 groups: Group I, control without treatment; group II, induction of LPS *E. coli* for 5 days, Group III, LPS induction of *E. coli* + Probiotic Bacteria *Lactobacillus casei* injection for 5 days together, and group IV, induction of LPS *E. coli* for 5 days + 5 days injection of *Lactobacillus casei* selanjutnya. After didekaputasi, research sample in the form of dental and periodontal tissues have decalsification, immunohistochemical examination to see the activity of osteoclasts in alveolar bone resorption to detect TRAP (tartarate-resistant acid phosphatase) and Carboxyterminal Telopeptide of Type 1 Collagen (1CTP) and subsequently analyzed the data collected statistically.

Kata kunci : *Lipopolysaccharide (LPS), Lactobacillus casei , osteoclast, alveolar bone resorption.*