# Activation of protein tyrosine kinase: A possible requirement for fixed-bacteria and lipopolysaccharide-induced increase in human natural killer cell activity

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Preincubation of peripheral blood lymphocytes (PBL) from drug-free, healthy volunteers with either the protein tyrosine kinase inhibitor genistein (GNT, n = 10, final concentration 200 ?M) or the protein kinase A activator dybutiryl-cyclic-AMP (cAMP, n = 11, final concentration 10 ?M), resulted in a significant inhibition of natural killer cell activity (NKCA, expressed as percentage of specific chromium release). With the exception of 4 out of the 11 cAMP-treated samples, individual values for NKCA in the drug preincubated specimens were at least 20% below the same subject baseline activity, furthermore, NCK lytic function was non-detectable in 4 out of the 10 and in 1 out of the 11 samples presented with either GNT or cAMP, respectively. PBL preincubation with glutaraldehyde-fixed Gram-negative bacteria (GNB, n = 13, final GNB-to-effector cell ratio of 50: 1) resulted in a statistically significant increase in NKCA (baseline (x ± SD) of 21.6 ± 16.4 and bacteria treated samples of 41.