[Scientific information] Research and Development Department,
Sun Chlorella Corporation

Patents obtained from the results of Chlorella research: September 2007

Generally speaking, diseases occur as the result of unfavorable signal transduction to the living organisms. If this could be inhibited, it is possible to cure the diseases. Enzymes and receptors are the two substances playing important roles in the signal transduction. A great number of research data in connection between diseases and the above substances has previously been reported.

Chlorella, on the other hand, is recognized to have numerous pharmacological effects. Examining its effects on enzymes and receptors allowed us to determine their mechanisms of action. The results of our research on this subject have already been published as a scientific paper (featured in Vol. 7, No. 2 of the *Journal of Medicinal Food*, 2004). We hereby announce that patents have recently been granted for the following two effects.

1. Tyrosine phosphatase inhibitor

Several types of this enzyme are known, and are extensively involved in various immune reactions. Inhibiting this enzyme is expected to be effective against autoimmune diseases, breast cancer, ovarian cancer, and other diseases.

Patent No. 4018610


特 許 証

特許第４０１８６１０号

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2. Matrix metalloproteinase (MMP) inhibitor

Several types of this enzyme are known, and work to weaken the adhesive bonding between two cells. Inhibiting this enzyme is expected to be effective against invasion of cancer cells, rheumatic arthritis, autoimmune diseases, periodontal diseases, tissue ulcers, and other conditions.

Patent No. 4018611

特　許　証

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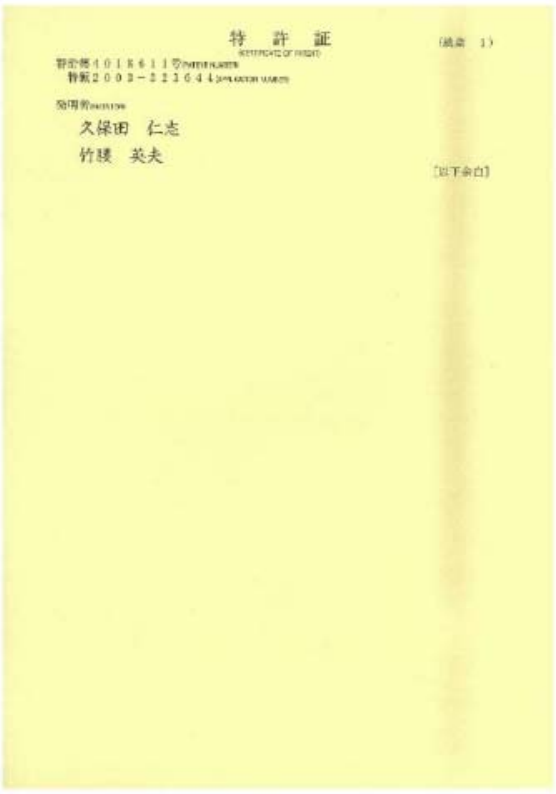

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Please see the following for explanations on the research paper:
"Effects of Chlorella on Activities of Protein Tyrosine Phosphatases, Matrix Metalloproteinases, Caspases, Cytokine Release, B and T Cell Proliferations, and Phorbol Ester Receptor Binding"

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