

[Pharmacology, 56, 230-236 (1998)]

[Lab. of Microbiology]

**Pharmacological Modulation of LPS-induced MIP-1 α Production by
Peripheral Blood Mononuclear Cells.**

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We investigated the effects of some anti-asthmatic drugs on the production of the CC chemokine, MIP-1 α , in response to LPS by peripheral blood mononuclear cells. MIP-1 α was induced by LPS in a concentration-dependent fashion. At the sub-maximum concentration of LPS (1 μ g/ml), the release of MIP-1 α increased with time. Actinomycin D and cycloheximide inhibited MIP-1 α production completely, but glucocorticoids did not. The coadministration of phosphodiesterase inhibitors with β -stimulants, which upregulate intracellular cyclic AMP levels, significantly potentiated the inhibitory effect of β -stimulants on MIP-1 α production. Moreover, db-cAMP suppressed MIP-1 α production dose-dependently. The data indicate that the production of MIP-1 α is regulated by cyclic AMP and that cyclic AMP could provide a useful target for therapeutic treatment in asthmatic diseases.

[J. Jpn. Environ. Infect., 13, 226-233 (1998) (in Japanese)]

[Lab. of Microbiology]

**Pollution Level and Bacterial Contamination in the 24 hr-Home Bath Water
— the Better Index for Washout —**

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For sanitation maintenance of the 24 hr-home bath water, concentrations of ammonia-N and urea in addition of turbidity, chemical oxygen demand and bacterial (*Legionellae*, coliform and total bacteria) concentrations in ten experimental situations were monitored in three homes composed of typical family make-ups in Japan from March to July 1997. As a result, ammonia-N and urea was found to be accumulated day by day though the other indexes were daily fluctuated between some levels. Accordingly we recommend that the concentrations of ammonia-N and urea are measured as indexes of bath water pollution for convenience. It is proposed that threshold concentrations of ammonia-N and urea are respectively made to be 0.7 mg/L and 2.3 mg/L.

[J. Jpn. Clin. Microbiol., 8, 222-225 (1998) (in Japanese)]

[Lab. of Microbiology]

Serogroup Distribution of *Legionellae* Isolated from Environmental Water.

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By using *Legionella pneumophila* new antiserum 7 to 15 in addition to 1 to 6 provided by Denka Seiken Co. Ltd.(Tokyo, Japan), the serogroup distribution was examined on *Legionellae* of 237 samples which were 124 isolated from cooling tower water and 113 from 24-h home bath water; Most (89%) samples in the former belonged to serogroup 1, while most samples in the latter belonged to serogroups 3 to 5 and no serogroup 1. Six samples reacted with new antiserum 7 but any samples did not react with serogroup 8 to 15. Analysis of 16S rRNA base arrangement about 12 cooling tower water samples without reacting at *L. pneumophila* serogroup 1 to 5 suggested that 9 samples was the new serogroup of *L. pneumophila*; that one was over 99% similar to *L. sainthelensi*; and that two were possible to be new species of *Legionella*.

[Natural Medicines, 52, 245-247 (1998)]

[Lab. of Herbal Garden]

**Pharmacognostical Studies on the Chinese Crude Drug "Quanxie"(3) Evaluation of
Crude Drug Scorpion by Taurine Content.**

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The main active component of a traditional Chinese drug scorpion, used for treatment of convulsion and arthralgia, is taurine. The taurine content in the head part of scorpion body was higher than that in the tail part. The yellow scorpion which was rare and has been considered to be of higher quality, had higher taurine than the black scorpion. Wild scorpion samples collected in Liaoning, in June had the highest taurine content, indicating that June was the best season for collecting scorpion in Liaoning. The taurine contents in the processed scorpions were apparently not influenced by the boiling time or salt concentration of boiling water. The taurine contents of commercial scorpions varied depending upon their habitats.