[PD2-31] [ 10/20/2000 (Fri) 11:30 - 12:30 / [Hall B] ]

## Effect of some flavonoids on LPS-induced NO production in rat peritoneal macrophages

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Nitric oxide(NO), known as an endothelium-derived relaxing factor, has been demonstrated to play a major role in the control of vasomotor tone and structure exhibiting various physiological activities and to be readily produced in macrophages activated by cytokine and endotoxin in the inflammatory processes. It has been previously shown that hyperin, a flavonoid isolated from the leaves of Acanthopanax chiisanensis caused a significant inhibition of $PGE_2$ production in the murine macrophages. In the present study, the effects of three flavonoids on LPS-induced NO production and iNOS expression in the rat peritoneal macrophages were estimated to clarify their roles in the inflammatory processes.
Rat peritoneal macrophages stimulated with LPS( 1μg/ml ) were incubated at 37℃ for 4hr in the presence of flavonoids. Inducible NOS proteins were detected by Western blot analysis.
All of the flavonoids tested such as hyperin, isoquercitrin and quercetin showed an inhibition of LPS-induced NO production and iNOS protein expression in concentration dependent manner(10-100μM ). Quercetin caused a significant inhibition of LPS-induced phosphorylation of mitogen-activated protein kinases (p44/p42 MAPK(ERK), p38 MAPK and JNK 1/2). These results suggested that the inhibition of LPS-induced NO production by flavonoids were partly due to the inhibition of iNOS protein expression.

[PD2-32] [ 10/20/2000 (Fri) 11:30 - 12:30 / [Hall B] ]

## Long Chain Phenols, Inhibitory Principles of HIV Protease from the Sarcotestas of <I>Ginkgo biloba</I>

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Nine long chain phenols were isolated from the $CHCl_3$ extracts of the sarcotestas of *Ginkgo biloba* for HIV protease inhibitors. Their structures were elucidated as four cardanols (**1-4**), three phenolic acids (**5-7**) and two bilobols (**8-9**) by spectroscopic analysis. Of them, phenolic acids and bilobols showed dose dependent inhibitory activities on HIV protease with $IC_{50}$ values from 2.6 to 24.8 μM.

[PD2-33] [ 10/20/2000 (Fri) 11:30 - 12:30 / [Hall B] ]

## Screening of sterol biosynthesis inhibitors from natural products using recombinant yeast carrying human lanosterol synthase

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For the development of new generation cholesterol lowering drugs from natural products, we have