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CBNU-1 has been used as a folk medicine in India for general physical strengthening, anti-aging, blood sugar stabilization, urinary tract rejuvenation, enhanced brain functioning potency, kidney rejuvenation, immune system strengthening, arthritis, hypertension and many other application for numerous conditions. The present study was conducted to evaluate the possibility of CBNU-1 as fertility agent. The effects of CBNU-1 on reproduction was studied on male rats. The study divided into four groups of six animals each. The first group ( I ) received vehicle alone to serve as control. The second, third and fourth groups( II , III and IV) of animals were administered per orally the CBNU-1 daily at 50mg/kg, 100mg/kg, and 200mg/kg body weight, respectively, for a period of 6 weeks. When Group IV compared with control, the numbers of sperm in testes and epididymides were observed significant differences. Histological examination revealed an apparent increase in the number of seminiferous tubular cell layers in the testes of treated rats as compared with control. However, the weights of heart, spleen, liver, kidney, brain, testes and epididymides were not observed significant differences. It is concluded that CBNU-1 produced dose related effects on male reproduction without an altering general body organ weights.

[PD2-39] [ 04/18/2003 (Fri) 13:30 - 16:30 / Hall P ]

### Preparation of monoclonal antibodies against berberine and its characterization

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Enzyme-linked immunoassay system using monoclonal antibody (MAb) has become an important methodology for the quantitative and qualitative analysis of drugs and phytochemical compounds having small molecular weight. In this study, monoclonal antibodies against berberine, one of main constituent of *Phellodendron amurense*, *Coptis japonica* and *Corydalis turtschaninovii*, were produced. A derivative of berberine, 9-O-carboxymethyl ether berberrubine, was prepared and conjugated to bovine serum albumin (BSA). The ratio of haptens in BSA conjugate was determined by matrix-assisted laser desorption/ionization (MALDI) to mass spectrometry in order to confirm its immunogenic ability. Hybridomas secreting MAbs against berberine were produced by fusing splenocytes immunized with mouse myeloma cell line, P3-X63-Ag8-653. Using these MAbs, an enzyme-linked immunosorbent assay was developed. Also, the produced MAbs were characterized.

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### Pharmacognostical Studies on the Folk Medicine 'Bong Seon Wha Dai'

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Korean folk medicine 'Bong Seon Wha Dai' has been used to cure constipation and acute gastritis by meat. The botanical origin of the crude drug has never been studied pharmacognostically. To clarify the botanical origin of Bong Seon Wha Dai, the morphological and anatomical characteristics of *Impatiens* species growing in Korea, i.e. *I. balsamina* L., *I. noli-tangere* L., *I. textori* Miq., *I. textori* Miq. forma. *pallenscens* Hara were studied. As a result, Bong Seon Wha Dai was proved to be the stem of *Impatiens balsamina* L..