

**E105** Identification of genes expressed differentially in heat sensitive *Caenorhabditis elegans* mutants

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In order to find factors related to heat shock response in *Caenorhabditis elegans*, we made heat sensitive mutants, S83-3, S89-1 by mutagenesis with EMS. Heat sensitive mutants S83-3 and S89-1 showed  $31.2 \pm 9.0\%$  and  $17.9 \pm 8.0\%$  survival rate, respectively under heat-shock condition at  $35^{\circ}\text{C}$  for 1hour while wild type N2 had  $88.3 \pm 8.8\%$  survival rate at same condition. Protein synthesis patterns in mutants were changed compared that of wild type under normal( $20^{\circ}\text{C}$ ) and heat shock condition. However, any change of longevity, life cycle and morphology was not detected. To find genes which show differential expression in mutants, differential display RT-PCR was performed. Thirty eight(38) bands with distinct intensity were detected. Among them, seven bands were cloned and amplified, and four detected the differential expression in mutants. Sequences of 4 clones were analyzed and matched to partial sequences of 4 cosmids of *C. elegans*. Although 4 clones cover open reading frames, the function of gene product are unknown yet. Now, we are preparing the clones for the in vivo expression of those genes in *C. elegans* by microinjecting.

**E106** The Effects of *Cordyceps militaris* on Growth and Lipids Concentration in Male Rats

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The effects of *Cordyceps militaris*(mycelium) on body weight gain, glucose and lipids concentration were studied in growing male rats for 35 days. The rats were fed diets containing 2, 3 or 4% *Cordyceps militaris*(CM) powder. The body weight gain, glucose level, hemoglobin concentration and hematocrit value of rats fed all CM diet groups were similar to the control. The concentration of the total lipid, triglyceride and total cholesterol in serum were decreased in rats fed all CM diet groups than in those control. The concentration of total lipid and triglyceride in liver were decreased in rats fed 3 or 4% CM diet groups than in those control. The level of HDL-cholesterol in serum were similar to all diet groups. The atherogenic index of the 3 or 4% CM diet groups decreased compared with the control group. The results indicated that the effects of *Cordyceps militaris* feeding were improved total cholesterol, triglyceride and atherogenic index in rats.