Calcium Concentration in Tumor Tissue of Liver in the LEC Rats

A. Ohta, G. Bu^{*1}, K. Hayakawa, Y. Sone^{*2}, S. Nakayama^{*3}, H. Mihara^{*3}, ^{*4} K. Sera, ^{*5} S. Futatsugawa, ^{*5} S. Hatakeyama, and ^{*5} Y. Saitoh

Department of Radiology, ^{*2} Biochemistry, and ^{*2}3Animal science, Kitasato University School of Medicine, Sagamihara Kanagawa 228-8555 Japan

^{*1}Department of Preventive Medicine, Norman Bethune University for Medical Science 13 Xinmin da jie, Changchun, 130021 P.R.China

> *4 Cyclotron Research Center, Iwate Medical University 348-58 Tomegamori, Takizawa, 020-0173 Japan

*5 Nishina Memorial Cyclotron Center, Japan Radioisotope Association 348-58 Tomegamori, Takizawa, 020-0173 Japan

Abstract

The relationship between liver calcium and calcinnogenesis was studied using Long-Evans Cinnamon(LEC) rats. Male LEC rats (4-, 6- and 8 week-old) had adlibtum access to tap water and were given CLEA CE-2 diet during their whole lifetime(3 to 35 months). Calcium concentration in liver and tumor tissue was determined by particle-induced X-ray emission(PIXE).

Calcium concentration in liver-cancer tissue of Long-Evans Cinnamon rats was higher than in the surrounding tissue and normal tissue(n=6).