Mouse circadian rhythm before the Kobe earthquake in 1995

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Records of unusual mouse behavior before the Kobe earthquake in 1995 were obtained to study the biological clock at Institute for Protein Research, Osaka University. A hypothesis that preseismic electromagnetic fields cause the disturbance in the clock of the mouse led us to an experiment to reproduce disorders in the circadian rhythms by irradiating mice to electromagnetic pulses generated by electric discharges. The results of the study suggested that the disturbed biological clock was very rare phenomena statistically and mice circadian rhythms were stimulated by electromagnetic pulses. In this presentation, we will introduce the data of the disturbed circadian rhythm before the Kobe earthquake and discuss its mechanism on the bases of our experiments.