

## **Effects of radiation on blood pressure and body weight in the spontaneously hypertensive rat model. Are radiation effects on blood pressure affected by genetic background?**

In this study, two varieties of rats (SHR: spontaneously hypertensive, and WKY: Wister Kyoto) were used to evaluate the effects of whole-body acute irradiation on the cardiovascular system.

Results from the SHR rats indicated that systolic blood pressure (SBP) increased with increasing radiation dose and that body weight gain was delayed. However, in the WKY rats, SBP did not change while body weight gain also decreased with increasing dose.

The differences in radiation effects on SBP and body weight gain in these rats suggest that the cause is differences in genetic background between the two strains of rats.

These two rat models might be useful for studying various radiation effects on non-cancer diseases such as circulatory diseases, chronic liver disease, and diminished bodyweight development.

doi : 10.1667/RR15536.1

RERF's objective with this brief outline is to succinctly explain our research for the lay public. Much of the technical content of the original paper has been omitted. For further details about the study, please refer to the full paper published by the journal.