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Experimental Modification of X-Ray Injury to the Skin of New-Born Rats (Abstract)

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8 day sparrow embryo is comparable to an 11 day chick or a 14 day turkey embryo in morphological development. However, an adaptive character for hatching, the egg tooth, appears on the 6th day in all three birds.

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EXPERIMENTAL MODIFICATION OF X-RAY INJURY TO THE SKIN OF NEW-BORN RATS

(ABSTRACT)

J. P. GOODRICH, T. C. EVANS, AND J. C. SLAUGHTER

New-born rats have been irradiated with dosages of 300 to 3,000 roentgens and the effects noted on the skin (histologically) two weeks later. It was found that animals irradiated at temperatures of 0-10 degrees C. were much more resistant to the radiation than those at room temperature. It was also found that at 30 and 35 degrees C. the injury produced was greater than that at 25 degrees C.

The effect of the temperature changes appears to be due (at least in part) to alterations produced in metabolic conditions. This conclusion is based on experiments in which the resistance was increased by preventing breathing during the irradiation. It was also found that legs and tails were more resistant if a ligature was applied during the roentgen treatment.

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CHANGES IN SUSCEPTIBILITY TO X-RAYS OF CERTAIN EMBRYONIC CELLS OF THE GRASSHOPPER

(ABSTRACT)

J. C. SLAUGHTER, T. C. EVANS, AND J. P. GOODRICH

Eggs of *Melanoplus differentialis* were irradiated with dosages of 1,000-10,000 roentgens, in steps of 1,000 on each of the first six days after laying. Gross and microscopical studies of the eggs were made after the controls had reached diapause.