

*The Bioclinical Laboratory of the University of Medicine, 1938-38 - 510-513*

reaction for the brilliant green lactose bile medium is between pH 7.1 and 7.4.

It cannot be stated definitely that the characteristics of the strains employed in this study might not have been changed if the experiment had been carried on for a considerably longer time, or if greater concentrations of bile had been employed. However, in spite of these factors, it seems that the results of the experiments here reported should argue in favor of the stability of the culture reactions of pure established cultures of *Aerobacter aerogenes*, so far as the influence of bile or bile salts alone is concerned.

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**Radioactive Iodine as an Indicator in the Study of Thyroid Physiology.\***

S. HERTZ, A. ROBERTS AND ROBLEY D. EVANS. (Introduced by Henry Jackson.)

*From the Thyroid Clinic, Massachusetts General Hospital, Boston, and the Physics Department, Massachusetts Institute of Technology, Cambridge.*

The known facts of thyroid physiology indicate that iodine is selectively taken up by the thyroid gland, and that in some measure that gland's function is regulated by its iodine content. Artificial radioactivity may be induced in a variety of elements by means of neutron bombardment. It seemed that the possibility of using "tagged" (radioactive) iodine as a physiologic indicator was one which demanded investigation.

Ethyl iodide (600-1000 cc) was irradiated in a paraffin-surrounded bottle by immersing in it a neutron source consisting of 110 mg of radium mixed with beryllium in a sealed tube. The radioactive iodine thus obtained was concentrated by a method which has been described elsewhere.<sup>1</sup> This method gave a precipitate of radioactive silver iodide, which was dissolved in a solution of 0.5-1.0 g of sodium thiosulphate, and then diluted to 10-15 cc for intravenous injection. In a series of 48 rabbits, no toxic effects from the acute administration of such quantities were experienced. Aliquot portions of the solution of radioactive iodine used for injection were withheld for measurement of radioactivity.

\*This work was aided by a grant from the Milton Fund of Harvard University.  
<sup>1</sup> Roberts and Irvine, *Phys. Rev.*, 1938, 53, 609.

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