THE SIGNIFICANCE OF CHOLINE AS A DIETARY FACTOR

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It is particularly appropriate so soon after the very tragic death of my colleague, Sir Frederick Banting, to emphasize the fact that the choline investigations which have already yielded many results of physiological significance, and promise more, are a direct outgrowth of the discovery of insulin. In the light of our present knowledge it was fortunate that, when Professor Macleod and his group initiated studies in which they observed insulin-treated denencreatized animals for several years, an adequate diet was not always used. A great deal of knowledge of the accessory food factors and of other aspects of nutrition has, of course, accumulated since that time. The denencreatized dog suffers from the loss of several of the digestive ferments, and the absorption of food material from the intestine is seriously impaired.

When Allan, Bowie, Macleod and Robinson in Toronto, and Fisher in Chicago noted large yellow livers in the insulin-treated animals, many possible explanations suggested themselves. When it was found that the abnormal condition could be prevented by the inclusion of raw beef pancreas in the diet, it became apparent that some constituent of this tissue was responsible for the improvement. Dr. Hershey,