

## **The Story behind the Discovery of Insulin**

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Most medical graduates are aware that Insulin was found as a result of experiments conducted by Frederick Banting and Charles Best in Toronto in the early 1920ies. It is less widely known that two other investigators were involved in the discovery, Prof. J.J.R Macleod and Prof. James Collip. The historical research carried out by Prof. Michael Bliss, Professor of Canadian History at Toronto University, in preparation for his seminal work “ The Discovery of Insulin” published in the 1980ies provided an overdue reminder of their contribution to the work. My interest in this subject developed having met Prof. Bliss during a visit to Toronto.

This presentation gives an overview of the history of knowledge about Diabetes and an account of how Banting formulated his idea as to how the “Internal Secretion” from the Pancreas, thought to be related to the disorder and sought after for many years, might be found. Then follows a review of the experimental work in 1921/1922 which resulted eventually in the discovery of a Pancreatic extract which they called Insulin. This proved effective in treating Diabetic animals and, shortly after, patients. Mention is made of the many problems encountered during the work and the acrimony which developed between the investigators, in particular Banting and Macleod.

The treatment of the first patients to be given Insulin, the obtaining of a patent for the substance and the early commercial production are then highlighted. Banting rapidly became world famous but there was further controversy and acrimony in 1923 when the Nobel Prize was awarded jointly to Banting and Macleod with no mention of Best or Collip.

Finally, brief consideration is given to the achievements of the four investigators during the rest of their lives and ends with an analysis of how the plaudits for the Discovery of Insulin might be divided fairly.

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