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As Professor Bliss's appealing foreword makes plain, he had no intention of writing a biography when, years ago, he started work on The Story of Insulin (1982): but he found the subject irresistible as 'a study in the problems of being a hero.' With it he completes the human history of the insulin story, explaining how and why such an event could happen in Toronto in 1922 and what it meant to the protagonist for the rest of his life. Beyond question, it is the best biography of its year, a book almost anyone can read for pleasure, and any history student for profit, for its portrait of professional life in Canada, 1910-1940.

The gist of the insulin story can be summarized briefly. The hormone insulin was one of the most spectacularly successful discoveries of scientific medicine, and the Toronto investigations which achieved success had been initiated by Fred Banting, a thirty-year-old doctor with no research training and no particular intellectual distinction. Banting's original idea, as recorded in the midnight note he wrote to himself in 1920, which led him to go to Toronto and propose the research, was scientifically flat wrong. It proposed to tie off and alter the pancreas in order to suppress one of the two secretions the gland was supposed to produce, and then to collect the other. In fact, insulin was successfully derived from whole pancreases collected in bulk from slaughterhouses.

It is doubtful whether, all his life long, Banting ever admitted or even understood that his original idea had been wrong. But, all his life long, knowing that he was not a trained research scientist like his colleagues, he sought another such idea, which would open up another field of clinical research that the specialists could explore in detail. He never found it.

His simplistic view of science, as the unlocking of valuable mysteries by an inspired Idea, was peculiarly attractive to Canadians and partly explains why from 1923 onward Banting was showered with honours and resources for further research. But only partly: two other essential elements were that insulin was genuinely amazing in its effects and that Banting strove vigourously and bitterly to claim his share of the credit for it. In 1923, within weeks of the award of the Nobel Prize, the Ontario Minister of Health announced that Banting 'now has something better than insulin to offer the world. . .An announcement will be made soon.' Bliss hazards a guess that this refers to attempts to find a universal antitoxin from adrenal glands. There was nothing in it. For the next fifteen years, Banting worked on subjects from infant diarrhoea to cancer, seeking another Idea. But none came. His predicament proves the generalization of historians of science that inspirational ideas, while real and occasionally the germs of valuable research, are extraordinarily rare.

But politicians and, at times, professors, are reluctant to
admit this. They find overwhelmingly attractive the notion that, once the investments necessary to get the scientific process going have been made, it is a cornucopia of social goods. In the progressive 1920s the belief was irresistible that, as an Australian professor put it, 'All that was necessary for the farmer, pastoralist and manufacturer was "to dip his pannikin into the reservoir of knowledge and obtain abundant help".'

The Ontario Health Minister's premature announcement demonstrates the consequences of Banting's fame. Lacking other resources Banting could only hope that diligence and inspiration would turn up another idea, and his personal diaries show the strain of this, as well as those of an anxious public and private life. It was by conventional methods that his specially-endowed research department became a useful centre of physiological research, notably in aviation medicine.

Banting is long dead, in an aircraft crash, possibly as unnecessarily accidental as his own insulin work. But the concept of the Idea is not, and is still used by scientists to get resources from politicians and by politicians to seek credit for their works. In the 1960s, one of the NRC's cabinet ministers wrote to the NRC every six months asking what notable discoveries had been made since his last enquiry. He received short shrift alike from practical engineers and from Gerhard Herzberg.

Michael Bliss makes no attempt to evaluate this phenomenon. Only psychological or sociological theories offer to do so and, as he says in the foreword, their general principles are thoroughly unconvincing. The question remains what we can do about it. Bliss offers no explicit answer. But what his book suggests is that, whatever the cause be and even if it were never identified, we are better off than before if we can get a sympathetic understanding of the human drama of history. This he has provided in Banting, a Biography a book which not only enriches the Canadian record but provides for readers in any country a fascinating tale of the inter-penetration of science and social life.

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