

## Process Paper

I chose Frederick Banting because he discovered insulin and in doing so saved the lives of everyone who is insulin dependent. What is remarkable is that he accomplished in less than two years what experts on diabetes had been working on for thirty years. Elizabeth Hughes seemed a good choice because she was a girl with diabetes, like me; she seemed like a character (she would sign her letters to her mother "Me!"); and there is much more information on her than on other early insulin users. Elizabeth represents everyone who is insulin dependent.

I began my research by reading books and articles relating to my topic and interviewing experts on the discovery of insulin and the science behind it. I went to Children's National Medical Center in Washington, D.C. to interview Fran Cogen, MD, CDE (Certified Diabetes Educator). I conducted email interviews with Gary Scheiner, CDE, and Dr. Michael Bliss, a historian and professor at the University of Toronto. Dr. Bliss's book, *The Discovery of Insulin*, was one of my most valuable sources. Dr. Bliss shared the transcript of his interview with Elizabeth Hughes with me and informed me of the university's Thomas Fisher Rare Book Libraries, where most of my primary sources came from. This archive contains Banting's original notebooks, newspaper articles about the discovery, and Elizabeth's letters to her mother. After the county competition, I read more of these primary sources and designed an interactive timeline. After the state competition, I added photos of current diabetes equipment to my site to show the progress of exploration in this area.

Designing a website seemed the best way to convey my topic because there are so many primary photos and other sources available. In the process of creating my site, I learned some coding and photo editing. Menu tabs that reflect the NHD theme helped me keep my site organized. To enhance readability, I activated the "lightbox" option to enable readers to click on any image or document to enlarge it.

Frederick Banting's explorations with the pancreas led him to discover insulin. Elizabeth Hughes encountered Banting and received insulin from him. Before, Elizabeth was starving herself to stay alive just a little longer. When she started receiving insulin, she exchanged a miserable life for a normal one. As she put it, "To think that I'll be leading a normal, healthy existence is beyond all comprehension." This quote highlights the dramatic change in her life; she was not expected to live much longer, but now she had the opportunity to live an ordinary life! She went on to attend college, marry William Gosset, have three children, and live to the age of seventy-three. The discovery of insulin opened up entire new fields of exploration: developing higher quality insulin, designing better equipment for diabetes care, and working towards a cure. Each time someone is diagnosed with diabetes, they encounter insulin and exchange a premature death for a regular life. As Elizabeth wrote, "You'd think it was a fairy tale."

Word count: 499