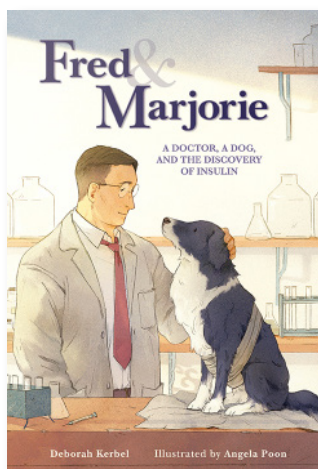




Fred & Marjorie: A Doctor, A Dog, and the Discovery of Insulin

Discussion Guide by Deborah Kerbel



Book written by Deborah Kerbel and illustrated by Angela Poon

About the Book

In 1921, Frederick Banting was a young doctor with an idea: could the mysterious secretions of the pancreas be used to treat diabetes? We now call this substance insulin, and its life-saving discovery was an impactful milestone in medical science.

Banting and his assistant, Charles Best, worked together in a small lab to test the theory with street dogs. Banting formed a special bond with one of his test dogs and gave her a name: Marjorie. After Marjorie responded well to insulin treatments, the treatments went on to be used for humans with diabetes—and the results were deemed practically miraculous. A real-life scientific milestone told in an innovative graphic novel format, the book also thoughtfully discusses the use of animals for medical research.

After You Read

- Of the dozens of stray dogs used in Banting and Best's research, why do you think only Marjorie was given a name?
- Do you think Marjorie and the rest of Banting and Best's lab dogs deserve equal credit in the discovery of insulin?
- It's very unusual for lab animals to be photographed or to be recognized for their assistance in scientific discoveries. Why do you think Banting and Best posed for photos with their insulin dogs?
- Do you think animal experiments are ethical in the name of science? What about if they result in saving a human life? What about 100 million human lives?
- What do you think Banting meant when he said, "Insulin belongs to the world"?

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CURRICULUM LINKS

Language Arts: Biography

Social Studies: Canadian History

Science: Human Organ Systems; Medicine

Technology: Inventions

READING LEVELS

Grade: 5+

Fountas & Pinnell: T

Lexile® Measure: GN600L

Common Core: L.5, LS.5, RL.5, W.5

