Bibliography

Primary Sources

Albert Einstein College of Medicine. "The Discovery of Insulin: Is There Glory Enough for All?" *Albert Einstein College of Medicine*. Last modified 1953. Accessed February 8, 2026. https://einsteinmed.edu/uploadedFiles/Pulications/EJBM/28.1_12-17_Whitford.pdf?
This source helped us understand the treatment process of dogs and the division of the credit among the researchers. We used this to help prove that there were mixed reactions, as the researchers fought for apt credit.

Arnold Thackray. "Frederick Banting, Charles Best, James Collip, and John Macleod:These 4 Toronto Researchers Discovered and Purified Insulin." Science History Institute Museum and Library. Last modified January 22, 1982. Accessed February 8, 2026. https://www.sciencehistory.org/education/scientific-biographies/frederick-banting-charles-best-james-collip-and-john-macleod/.
This source helps us understand Frederick Banting, the father of Insulins process of finding a diabetes treatment. We used this to prove that insulin was revolutionary medicine, as it gave us information on dietary restrictions before insulin reformed diabetic treatment.

Banting, Frederick G. "Nobel Prize Lecture." Lecture presented at Stockholm, Stockholm,, Sweden, September 15, 1925. *The Nobel Prize*. Nobel Prize Outreach. Last modified September 15, 1925. Accessed February 8, 2026. https://www.nobelprize.org/prizes/medicine/1923/banting/lecture/.
This source gives us insight into Frederick Banting's lecture, after winning the Nobel Prize, as he describes key areas of his research. We used this source to prove the drawbacks in insulin, as extracting pure insulin was difficult, which caused allergic reactions.

Corus Entertainment. "Insulin's Centenary: The Birth of an Idea." *The Global News CA*. Last modified 1994. Accessed February 8, 2026. https://globalnews.ca/wp-content/uploads/2020/10/20TLDE0982.pdf?utm_source=copilot.com.
This source gives us more info on Collip's purification of insulin for human use. We can use this to help prove that scientists were trying to refine the discovery for more suitable usage.

Macleod, John. "Nobel Prize Lecture." Lecture presented at Stockholm, Stockholm, Sweden, May 26, 1925. *The Nobel Prize*. Nobel Prize Outreach. Last modified May 1925. Accessed May 26, 1925. https://www.nobelprize.org/prizes/medicine/1923/macleod/lecture/.
This source gives us a scientific definition and history of insulin. We can use this source to prove that insulin reformed medical endocrinology about supplemental hormones.

National Museum of American History. "Insulin." Last modified March 10, 2005. Accessed February 8, 2026. https://americanhistory.si.edu/ar/collections/object-groups/insulin-and-diabetes-management/insulin?page=1.
This source gives us insight into Eli Lilly's early production and standardization of insulin. We can use this to prove the revolutionary capabilities of insulin and its mass production rate.

Springer Nature. "Discovery of Insulin-1922." *Springer Nature Link*. Last modified 1996. Accessed February 8, 2026. https://link.springer.com/chapter/10.1007/978-3-031-25620-2_16.
This source provides us insight into Von Mering & Minkowski's foundational pancreas–diabetes link, and Early insulin extraction methods using fetal calf pancreas. We can use this source to prove the event leading up to insulin.

University of Pennsylvania. "100 Years of Insulin." *100 Years of Insulin*, July 26, 2021, 1. Accessed February 6, 2026. https://penntoday.upenn.edu/news/100-years-insulin.
This gave us complete information about the event, and we can use this to prove the long/short term effects of insulin.

University of Toronto. "Academy of Medicine Collection." *University of Toronto Libraries*. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/view/insulin:academy.
This source gives us more insight into material from the Academy of Medicine, Toronto. We can use this to prove the reactions from the public

University of Toronto. "Best (Charles Herbert) Papers." University of Toronto Libraries. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/view/insulin:best.
This source gives us key information on collections of research notes and papers by Charles Best. We can use this to find mixed reactions within the research team.

University of Toronto. Biography of Charles Herbert Best (1899-1978). University of Toronto Libraries. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/explore/insulin/about/best.
This gave us information from Charles Best's perspective on the event. We can use this to prove the mixed reaction of the public and researchers.

University of Toronto. "Biography of James Bertram Collip (1892-1965)." University of Toronto Libraries. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/explore/insulin/about/collip.
This gave us information from James Collip's perspective on the event. We can use this to prove the mixed reaction of the public and researchers.

University of Toronto. "Biography of John James Rickard Macleod (1876-1935)." *University of Toronto Libraries*. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/explore/insulin/about/macleod.
This gave us information from John Macleod's perspective on the event. We can use this to prove the mixed reaction of the public and researchers.

University of Toronto. "Biography of Sir Frederick Grant Banting (1891-1941)." *University of Toronto Libraries*. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/explore/insulin/about/banting.
This gave us information from Frederick Banting's perspective on the event. We can use this to prove the mixed reaction of the public and researchers.

University of Toronto. "Collip (James Bertram) Papers." University of Toronto Libraries. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/view/insulin:collip.
This source gives us key information on research notes and papers, including Collip. We can use this for varying researcher reactions

University of Toronto. "The Discovery and Early Development of Insulin:From a Patient's Point of View." University of Toronto Libraries. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/explore/insulin/about/patients.
This gave us information from the patient's perspective. We can use this for patient reactions.

University of Toronto. "The Discovery and Early Development of Insulin Repository." *University of Toronto Libraries*. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/repository/insulin.
This gave us information on the background of the event. We can use this for long/short term effects of the event

University of Toronto. "F. G. Banting (Frederick Grant, Sir) Papers." University of Toronto Libraries. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/view/insulin:banting.
This source gives us key Information on research notes and papers, including Frederick Banting, the father of Insulin. This can be used for the researcher's perspective on the event.

University of Toronto. "Interactive Timeline." *University of Toronto Libraries*. Last modified October 31, 2025. Accessed February 8, 2026. https://collections.library.utoronto.ca/explore/insulin/about/timeline.
This gave us multiple primary sources about insulin, and we can use this to prove how insulin affected other medical fields

Secondary Sources

Arffman, Martti, Pirjo Hakarainen, Ilmo Keskimaki, Tuula Oksanen, and Reijo Sund. "Long-term and Recent Trends in Survival and Life Expectancy for People with Type 1 Diabetes in Finland" [Long-term and Recent Trends in Survival and Life Expectancy for People with Type 1 Diabetes in Finland]. Diabetic Research and Clinical Practice. Last modified April 2023. Accessed January 27, 2026. https://www.diabetesresearchclinicalpractice.com/article/S0168-8227%2823%2900055-4/fulltext.
We used this source to prove our thesis, because it gave us information on how many people were affected by diabetes and insulin. This helped us understand just how many people were affected by diabetes and how effective insulin was.

Banting, Frederick G., James B. Collip, and Charles H. Best. "Pancreatic Extracts in the Treatment of Diabetes Mellitus" [Pancreatic Extracts in the Treatment of Diabetes Mellitus]. *Pancreatic Extracts in the Treatment of Diabetes Mellitus*, o.s., 141-46. https://pmc.ncbi.nlm.nih.gov/articles/PMC1524425/?utm_source=chatgpt.com&page=1.
We used this source as a basis of information, and we used this primary source to prove our thesis by showing the different physician reactions to the hormone.

Bliss, Micheal. "The History of a Wonderful Thing We Call Insulin" [The History of a Wonderful Thing We Call Insulin]. American Diabetes Association. Last modified July 1, 2019. Accessed January 21, 2026. https://diabetes.org/blog/history-wonderful-thing-we-call-insulin.
This source teaches us about the history of Insulin about how it originated and how it grew. We can use this source for our long-term impact and the evolution of insulin

Buse, John B., Melanie J. Davies, Brian M. Frier, and Athena Philis-Tsimikas. "100 years on: The impact of the discovery of insulin on clinical outcomes." *National Library of Medicine*. Last modified August 16, 2021. https://pmc.ncbi.nlm.nih.gov/articles/PMC8370559/.
This helped us understand how severe diabetes was before the discovery of insulin. This helped us prove how revolutionary insulin was.

Defining Moments Canada. "History of the History of the Discovery of Insulin." *Insulin100*. 2021. Accessed February 11, 2026. definingmomentscanada.ca.
This source taught us about different reactions; we can use this to prove that there were negative reactions towards the discovery of insulin.

Diem, Ducluzeau, and Scheen. "Discovery of Insulin." *ScienceDirect*. Last modified January 2022. https://www.sciencedirect.com/science/article/pii/S2666970621000494.
This gave us detailed information on what the scientists did to the dogs; we can use this to prove the differing reactions held by multiple researchers trying to fight for credit.

Heritage Minutes: The Discovery of Insulin. Historica Canada, 2021. Accessed February 24, 2026. https://www.youtube.com/watch?v=amCeBhkNo50.

We used this video to represent the immediate effects after Insulin was purified and isolated. This helped us prove the revolutionary part of the thesis.

"Insulin 100" [Insulin 100]. University of Toronto. Accessed January 22, 2026. https://insulin100.utoronto.ca.
This gave us information on the entire history of insulin for 100 years; we can use this to prove the long term effects of insulin, such as inspiring endocrinologic research.

Leonard Thompson. 1930. Photograph. https://collections.library.utoronto.ca/explore/insulin/about/patients.
This source gave us information on the before and after of patients treated. We can use this source to prove the effectiveness of insulin, explaining why it was so revolutionary.

Levy, Max. "Insulin Development and Commercialization." *American Chemistry Society*. Last modified March 27, 2023. https://www.acs.org/education/whatischemistry/landmarks/insulin.html.
This source gave us information on the mass production of the hormone. We can use this to prove that insulin was so revolutionary that it was mass-produced in quick succession by multiple companies.

LeWine, Howard E. "People with Type 1 Diabetes Are Living Longer." *Harvard Health Publishing*. Harvard Medical School. Last modified January 8, 2015. Accessed February 16, 2026. https://www.health.harvard.edu/blog/people-type-1-diabetes-living-longer-201501087611.
This source taught us about the varying types of diabetes, and we can use this source to provide some statistics on mortality rates, proving the reform part of our thesis.

Lewis, Gary F., and Patricia L. Brubaker. "The discovery of insulin revisited: lessons for the modern era." *pmc*. Last modified January 4, 2021. https://pmc.ncbi.nlm.nih.gov/articles/PMC7773348/.
This source gave us information on the disease, which we can use to prove that insulin was the only known treatment for the unexplained disease, proving its healing abilities.

"100 Years of Insulin" [100 Years of Insulin]. U.S. Food and Drug Administration. Last modified June 8, 2022. Accessed January 21, 2026. https://www.fda.gov/about-fda/fda-history-exhibits/100-years-insulin.
This source gave us the basic history of insulin, and we can use this source to show the reformation in treatments after the discovery of insulin

Pharmaceutical Press. Celebrating 100 Years of Insulin. *Pharmaceutical Journal*. Last modified February 22, 2021. Accessed February 8, 2026. https://pharmaceutical-journal.com/wp-content/uploads/2021/11/Celebrating-100-years-of-insulin_Nov-4.pdf?utm_source=copilot.com.

This source gives us insight into the first clinical use of insulin on Leonard Thompson, and the subsequent events after insulin. We can use this to prove long term effects of insulin.

Quianzon, Celeste C., and Issam Cheikh. "History of Insulin." *null*. Last modified July 16, 2012. https://pmc.ncbi.nlm.nih.gov/articles/PMC3714061/.
This source gave us some basic information on the event, covering all aspects of the event. We can use this to prove the short and long-term effects of insulin.

Star, Toronto Daily. "Toronto Doctors on Track of Diabetes Cure" [Toronto doctors on track of diabetes cure]. *Toronto Daily Star* (Toronto), March 22, 1922. https://collections.library.utoronto.ca/view/insulin%3AC10026?utm_source=chatgpt.com .
This source gave us information about the progress of the researchers, and we can use this to prove the positive reactions from the public.

Umass Chan Medical School. "Banting and Best: The Discovery of Insulin." *Umass Chan Medical School*. Last modified July 27, 1962. Accessed February 1, 2026. https://www.umassmed.edu/dcoe/diabetes-education/patient-resources/banting-and-best-discover-insulin/.
This source gave us information about the first human treatment, and we can use this to prove patient reactions.

Vecchio, Ignazio, Cristina Tornali, Nicola Luigi Bragazzi, Mariano Martini. "The Discovery of Insulin: An Important Milestone in the History of Medicine." *National Institute of Health*. Last modified October 23, 2018. https://pmc.ncbi.nlm.nih.gov/articles/PMC6205949/.
This source gave us information on the entire event, and we can use this to prove the long and short term reactions of the people