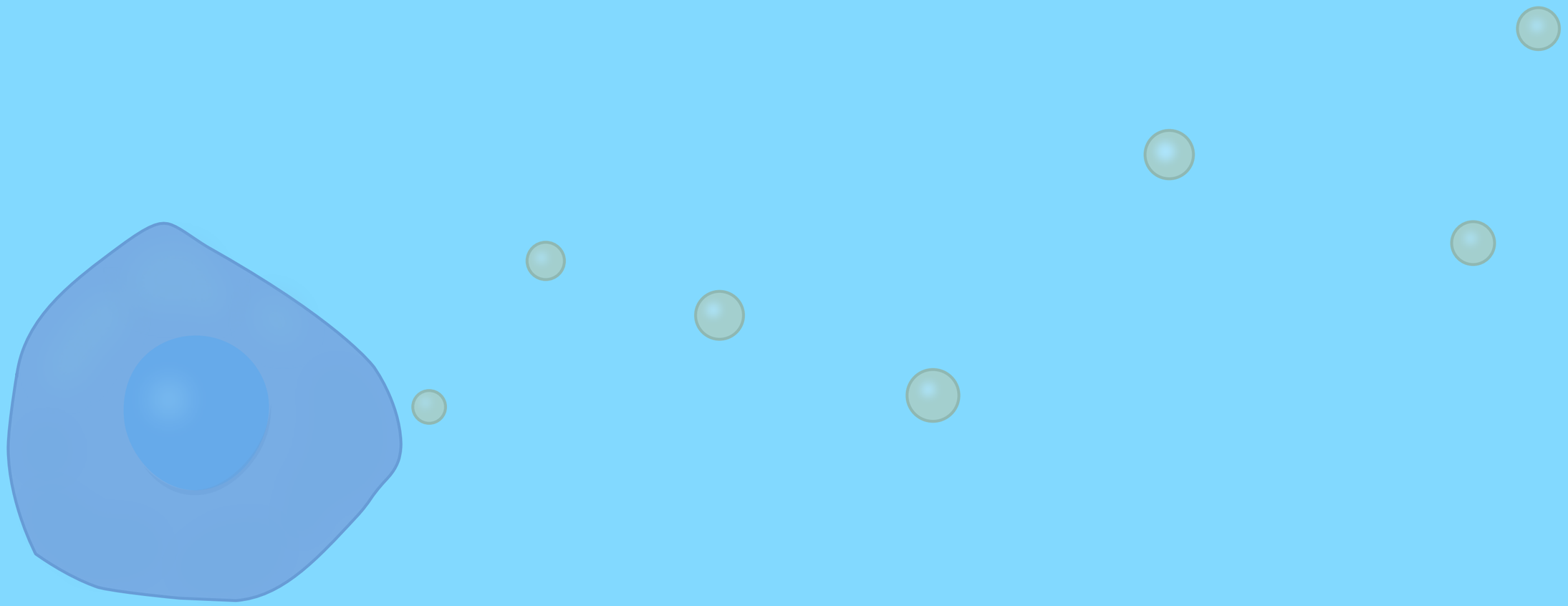
Cellular Replacement Therapy

for Type 1 Diabetes



Alexis Morozov

Committee

Thomas Nowacki, CMI

Chair of Biomedical Art and Associate Professor, Cleveland Institute of Art

Beth Halasz, CMI

Assistant professor of Biomedical Art, Cleveland Institute of Art

Mary Assad, PhD

Full-Time Lecturer, Case Western Reserve University

Jeffrey Millman, PhD

Assistant Professor, Washington University School of Medicine

Problem Statement

Diabetes Mellitus can affect both the young and the old alike. Type 1 diabetes in particular is a condition in which the pancreas cannot produce insulin, due to the total or near total destruction of pancreatic beta cells. Type 1 diabetes is generally developed at birth, and patients rely on insulin injections to live safely.

Cellular replacement therapy is a modern treatment that could replace insulin injections for type 1 patients. There are currently few resources available to patients with type 1 that break down the research and effectiveness of cellular replacement therapy. Therefore, patients and their families are not able to understand the potential that this modern life-saving treatment has to offer.

Thesis

An animation with motion graphic elements and voice-over narration could help bridge the knowledge gap for cellular replacement therapy between a general audience and medical professionals. My project will educate and provide understanding to a lay audience on how cellular replacement therapy works to treat type 1 diabetes. This project will emphasize the importance of cellular replacement therapy and how this form of treatment can save lives.

Production

Programs

Adobe Photoshop

Adobe Illustrator

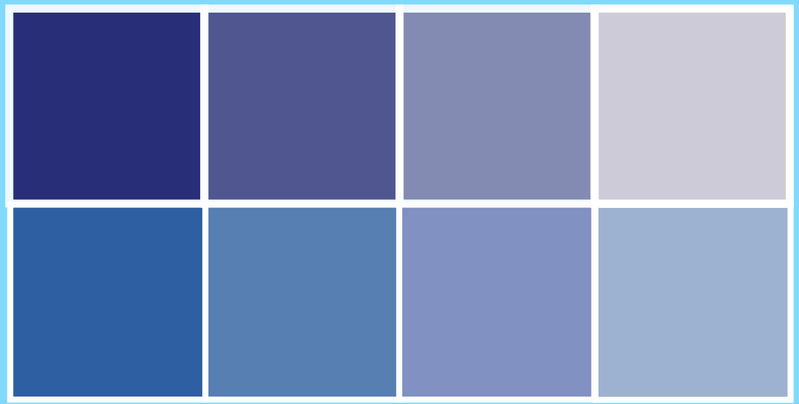
Adobe After Effects

Fonts

Century Gothic Pro

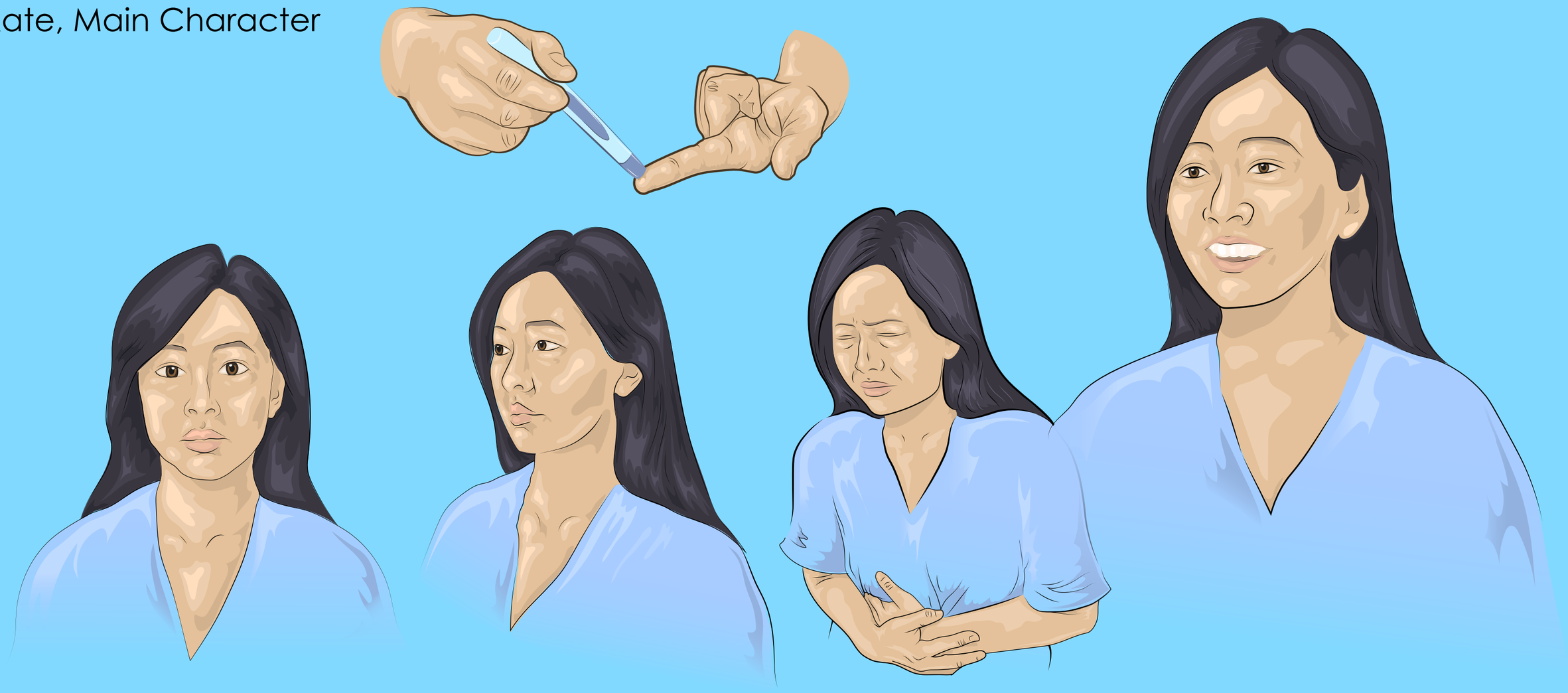
Century Gothic Pro Bold

Palette



Assets

Kate, Main Character



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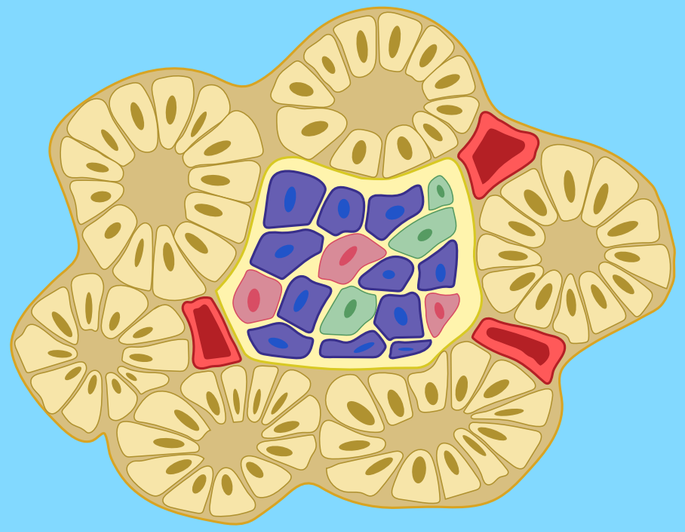
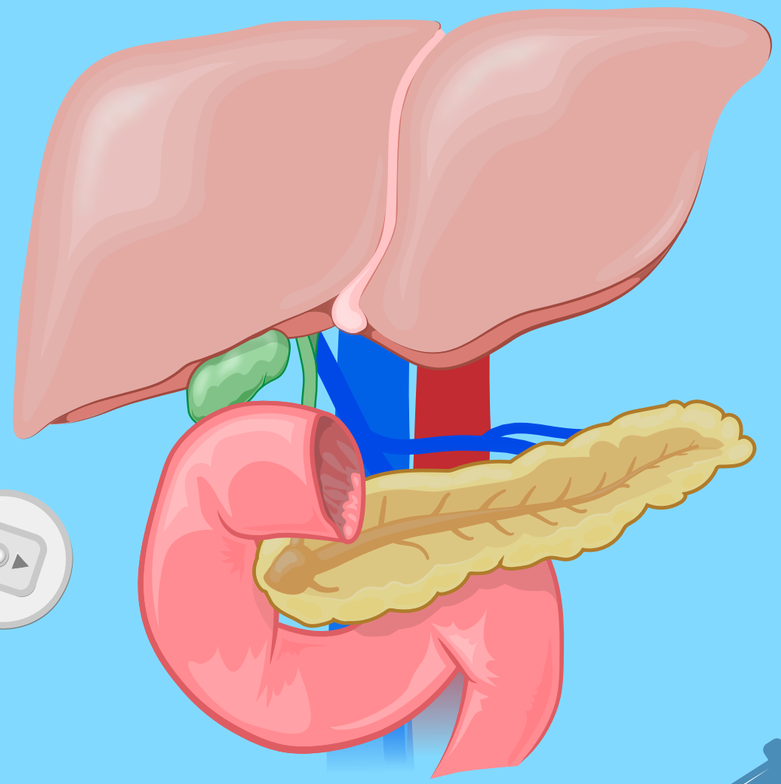
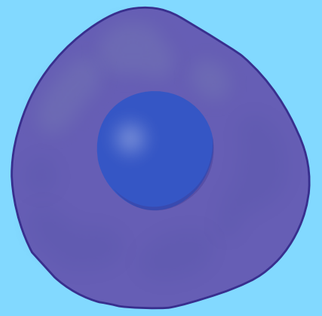
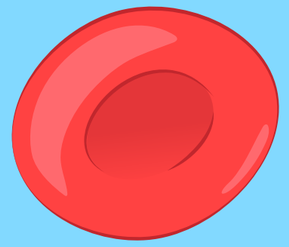
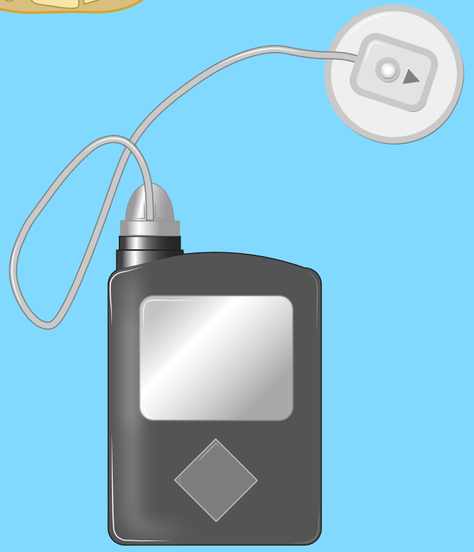
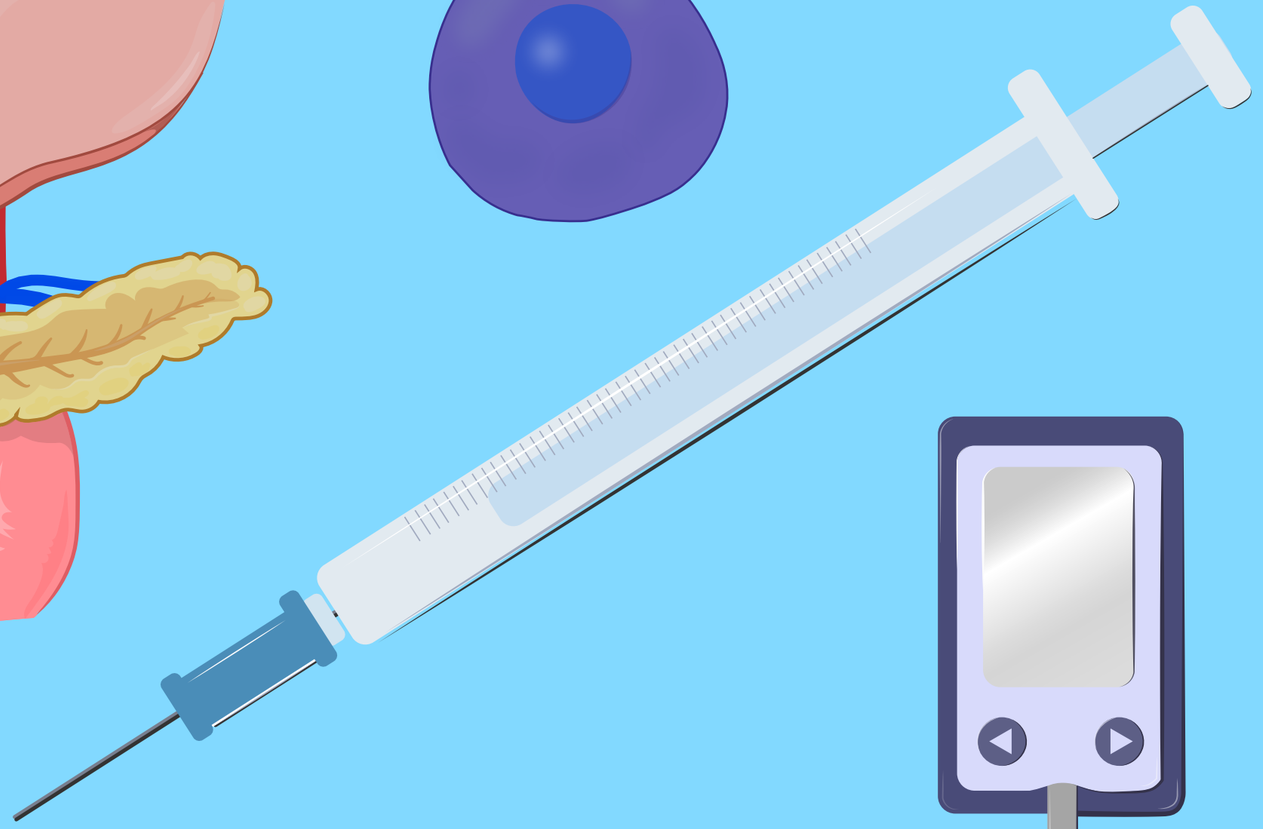




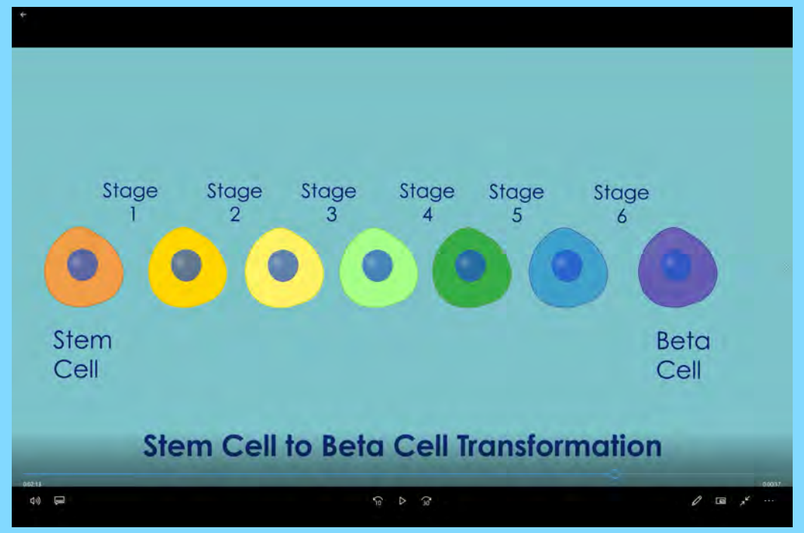


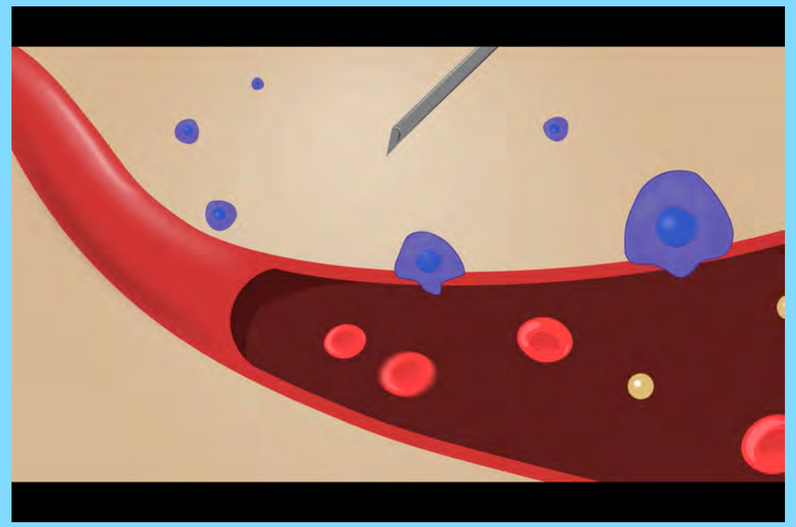






Animation


Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Stage 6
Stem Cell
Beta Cell
Stem Cell to Beta Cell Transformation



Animation

https://www.youtube.com/watch?v=iMFc5ZIbEJI

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Artist Statement

Alexis Morozov

As an artist and biomedical Illustrator, my job is to tell a story that can educate viewers from many diverse educational backgrounds. I am able to use visuals to create a narrative for a topic, that allows connections to be developed. In this particular case, my piece will help lead a lay audience towards better understanding of how Cellular Replacement Therapy will be used to help treat type 1 diabetes. My visuals and level of scientific descriptions will be geared towards the general public and those who seek to learn more about this modern treatment.

In this project, I combine prior techniques for Adobe Illustrator and vector styled work. These techniques will be used to create a medical motion graphic for patient education. The animation is assembled in Adobe After Effects and is created with a graphic style that simplifies the complicated subject matter. The final product will be accessible to the public online, so that the work will have the opportunity to be shared by those who are interested.

The final product is Two Minutes and Fifty seconds long. The motion graphic is compiled with dozens of assets that are completed in Adobe Illustrator and assembled in Adobe After Effects. The background color of the animation will be a medium blue hue, a shade that is often used in medical education pieces. The video will consist of a voice over narration and royalty free background music. This piece will serve as a tool for educational purposes.