

# SENECA Trial Summary

## SENECA Background

A certain group of cancer medications, called anthracyclines, have dramatically improved cancer survival numbers over the past 50 years. Although these medications remain common and effective treatments for a number of cancers, they do include toxins that affect the heart. In some cases, this can result in damage to the heart muscle and cause a form of heart failure called anthracycline-induced cardiomyopathy (AIC).

Heart failure is a common yet serious condition. It is a condition in which the heart muscle does not pump blood throughout the body as well as it should. It can cause shortness of breath, a tired run-down feeling, swelling in the legs, feet, and ankles, weight gain from fluid build-up, and confusion. Over a period of years, the heart's pumping ability continues to get worse and treatment options can be limited. Stem cells may provide a treatment in the future for heart failure.

## SENECA Stem Cell Description

Stem cells are cells that do not yet have a specific function in the body. Mesenchymal stem cells (MSCs) are a type of stem cell that can be grown from bone marrow (the spongy tissue inside of your bones). Rather than taking these cells from bone marrow (which has been exposed to cancer medications in the past), MSCs can be taken from a healthy donor (who has never had chemotherapy). This type of stem cell is called allogeneic. It is hoped that by placing allogeneic MSCs into the heart, they will allow the heart to work better and reduce the scarred heart tissue associated with heart failure.

## SENECA Research Question

The purpose of this research study is to determine whether giving allogeneic MSCs to patients with AIC is safe and whether these treatments improve heart function.

People that have been diagnosed with AIC and have been cancer-free for at least two years are being asked to participate in this study. If this condition applies to you and you are interested in learning more about the SENECA trial, please contact the study team below for more information:

