

Trial Will Inject Bone Marrow Stem Cells into Hearts

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For the first time, a Utah hospital will begin injecting bone marrow stem cells directly into a patient's heart during open heart surgery. The first of its kind clinical trial is the first stage for what could be a potential self repair for a failing heart.

For patients needing open heart surgery at Salt Lake Veteran's Hospital, and who volunteer for this clinical trial, a new kind of therapy will be injected into their hearts.

George Russell Reiss, M.D., George E. Wahlen V.A. Medical Center: "They'll have their own bone marrow harvested. Stem cells will come over to this new facility and processed for a purified layer of cells containing stem cells. We'll put them directly into the heart during the operation."

The new processing center Dr. George Reiss talks about will be headed up by Dr. Linda Kelly. It's just across the street from the Veterans Hospital at the University of Utah's Research Park.

This new eight thousand square foot lab is huge. Beyond this first clinical trial, there's enough high tech and sophistication here to separate and process stem cells not only from the patients themselves, but from donors. This is just the beginning.

While this first trial is looking mostly at safety, follow-up trials will test whether stem cells from bone marrow are actually converting to heart muscle cells. If so, an artificial assist pump could temporarily take over the workload of a patient's own failing heart, allowing it to rest while the converted stem cells repair the damage. The patient's own heart, in essence, repairs itself!

And if it works on the heart, why not the kidneys, pancreas, or damaged or severed nerves?

George Russell Reiss: "The central processing system for injury, repair and fighting disease, infection and organ damage is now known to come from the bone marrow."

While the stem cell transplants begin now with Salt Lake's own V.A. Hospital, Dr, Reiss and his colleagues hope to form a Utah Heart Failure Network where the V.A., University of Utah, and LDS Hospitals together become a consortium for stem cell trials.