Nabil Dib, M.D., M.Sc., F.A.C.C.

Director of Cardiovascular Research Chandler Regional and Mercy Gilbert Medical Centers



As with many of life's troubles, the problem starts small – a tiny bit of fatty material settles on the walls of a major artery. Over several years, more and more of this plaque collects until there is little to no room

left for blood to flow freely. Without the blood and life-giving oxygen it brings, the heart seizes and the muscle begins to die.

This scenario is the leading cause of death for both women and men. Approximately 1.2 million heart attacks occur in the United States every year, while more than 12 million people in the nation are suffering from some form of heart disease.

Efforts to reduce the occurrence of heart attacks through prevention are vital and remain our first priority. Clinical trials are currently under way at two Catholic Healthcare West (CHW) hospitals to determine whether adult stem cells can effectively improve cardiac health.

Using highly accurate 3-D images of the heart, Nabil Dib, M.D., and his team of interventional cardiologists at Chandler Regional and Mercy Gilbert Medical Centers are delivering adult stem cells directly into damaged heart tissue via a catheter. This series of clinical trials is setting out to determine if the adult stem cells will develop into new blood vessels that will prevent further damage to the heart.

"We're researching whether these new treatments might help those who have exhausted all other options," Dr. Dib explains. "The aim of studies such as these is to see if adult stem cells will assist with cardiac regeneration and help repair damaged heart tissue."

By integrating compassionate care with state-of-the-art technology and leading-edge clinical research, CHW is providing innovative treatments to those in need and advancing the science of care worldwide.

ADULT STEM CELL RECIPIENT CUTS FIRE LOGS AGAIN

...Lankford couldn't crank chain saw before procedure



For over 45 years as a newsman and media specialist, I was an eyewitness to history-making events ... civil rights demonstrations across the South, crime, politics, and the largest building project ever attempted by man.

So, not surprisingly, when a cardiologist at Gilbert, Ariz., recently told me of research that may rejuvenate severely damaged hearts with adult stem cells, I greeted the news with cynicism mixed with a ray of hope.

For after all, hasn't the medical profession long told us that when heart muscle cells die they are dead forever? Lucky for me, and millions of others with heart disease, Nabil Dib, M.D., M.Sc., F.A.C.C., and other interventional car-

diologists are proving that hypothesis to be untrue.

Due to a weakened heart, I couldn't climb stairs or walk far without losing my breath and my heart tightening. I couldn't screw off jar lids, raise windows, crank lawn mowers or pick up my grandchildren.

The adult stem cell procedure took about three hours on May 30th of this year. Dr. Dib's entire team gathered in the cardiac catheterization lab at Mercy Gilbert Medical Center to participate in a program they had worked on so hard for years. There was a 3-D color coded mapping of my heart, using a special needle on a catheter with a sensor guided by magnetic fields. This was to create a geometrical representation of the heart chamber to visualize the heart's damaged regions. Here, Dr. Dib injected 75 million adult stem cells from a donor into specific areas using a minimally invasive procedure. If all goes well, the cells will take root and flourish, essentially mending my broken heart.

The study in which I am participating is the first human trial using the experimental Revascor adult stem cells -- derived from bone marrow cells -- in people who have heart failure. Dr. Dib believes the use of adult stem cells could perhaps one day replace heart transplants. There were no complications from the procedure and in just a few weeks I could, miraculously it seemed, again pick up and hold my grandchildren. I soon operated a chain saw, which I couldn't even crank before the adult stem cells, to saw downed trees into fire logs. I then split and placed the logs into stacks. In the sultry 93-degree Alabama heat, I was wringing wet with sweat from head to toe ... but my heart didn't skip a beat.

I can now climb stairs and walk miles without any shortness of breath or tightness in my chest. I can lift up the garage door in one motion, and easily lift and pour the five-gallons of gasoline into my farm tractor. Our Golden Retriever is happy again, for I can toss him sticks to retrieve until he tires of the game. I'm not quite as strong as before the heart attack, but I'm not complaining ... only thankful for the renewed strength that I do have.

I will not officially know for three years whether or not I received the adult stem cells or if I am experiencing an enormous placebo effect, for I am participating in a blinded study, where only three out of every four participants actually receive the adult stem cells but, whether from adult stem cells or hopeful anticipation, I gratefully accept the vast improvement of my heart function. I am happy to wake up each new day feeling like my childhood hero, Superman, who could fly as fast as a speeding bullet and leap tall buildings in a single bound I keep pinching myself to see if I am dreaming, or if this new found energy is for real. \checkmark

-Tom Lankford

Lankford was crime reporter and night city editor for The Birmingham News in Alabama in the 1960s and reported on the marches, bombings, and riots that led to integration of facilities in his City and State. He was later editor and general manager of The Huntsville News. He worked 19 years in Saudi Arabia assigned to PR for the Royal Commission for Jubail and Yanbu, Yanbu Project, in the largest construction project ever attempted by man.