**To:** Dr. Henry Boucher **From:** Mary Gaut

Re: Stem Cell Treatment for Patella Femoral Arthritis January 2017

**Date:** January 12, 2018

## Report on Knee Pain and Functioning – One Year Post Stem Cell Treatment

Though I appreciate the importance of the quantitative surveys in assessing the benefits of this treatment, I also think they do not capture some of the subtler ways it has been beneficial. The following narrative report may be shared with others contemplating the treatment.

The issue that the treatment sought to address was patella femoral arthritis in my left knee with full thickness loss of cartilage over a broad area. Over the course of several years it had become impossible to go up and down stairs in normal alternating fashion. I had to go up one step at a time leading with my better leg going up and the bad leg going down. Increasingly I needed to use arm rests or table surfaces to push myself up from a seated position. Squats were impossible. In the months before treatment I was even having trouble walking down slopes in a normal fashion and occasionally on flat surfaces. Any bending/lifting simultaneous movement such as rising, going up and down stairs and walking normally down sloped surfaces was painful and increasingly impossible.

The stem cell treatment has made a marked difference in my functioning! I can now go up stairs normally with the assistance of a handrail. If the steps are not too steep I can go down normally as well but most staircases require going down one at a time since the pain is accompanied by a feeling of instability. I have been able to resume two-mile walks in the neighborhood that includes multiple hills and, for the most part, can walk normally through the whole course. Extremely steep hills require care going down. I can rise from a seated position without assistance. I still cannot squat, however. The pain level in most of these activities is mild to moderate rather than severe or extreme. Functioning improved within a couple of weeks with subtle but steady improvement for some time.

IMPORTANT: I have increasingly discerned that muscle tone in my left leg...especially quadriceps...is weaker than in my right leg. The imbalance was not always fully recognized as the right leg compensated in many ways. I have recently embarked in a dedicated strengthening program. There is evidence that this will increase the functioning beyond what the stem cell treatment accomplished. Prior to the treatment I underwent a course of PT but certain moves were so extremely painful because of the loss of cartilage that it did not offer significant relief. I think the healing offered by the stem cell treatment enabled more effective participation in exercise therapy and would encourage others to engage in both and not see the stem cell treatment as a stand-alone approach.

The bottom line for me is that the stem cell therapy, while not a complete arthritis "cure" has greatly enhanced my quality of life and ability to move normally throughout my day. The two staircases in my house no longer feel daunting. I enjoy my walks, whether outside or on a treadmill. I no longer feel a knee replacement is in my immediate future if I maintain current functioning. I have often though that a second stem cell treatment might increase the benefits and would gladly do it again if insurance would cover it. A second out of pocket cost of \$4,000 is, however, not affordable currently. But the investment in the first treatment was well worth it...avoiding, for the present, a total knee replacement and the long and painful recovery that would entail. I would recommend others seriously consider this treatment as an alternative to replacement if Dr. Boucher discerns it is appropriate.