

Supplemental Methods

In Vitro Smooth Muscle Actin (SMA) Immunohistochemistry:

hASCs (34 year old female) and hBMSCs (29 year old male, 22.4 BMI) were seeded in 6-well culture plates at a density of 2,000 cells/cm² and serum starved for 24 hours prior to experimentation. Each cell line was then cultured in either HCC or NCC for 48 hours (t0) and then all cells were grown in NCC for an additional 48 hours (t48). At each time point (initial plating after serum starvation, t0 and t48) cells received fresh growth media or were harvested to determine the number of SMA+ cells using immunohistochemistry. Briefly, cells were fixed using methanol at 0°C for 5 minutes and then immunostained for smooth muscle actin (SMA, 1:300, mouse monoclonal anti-SMA clone 1A4 Cy3 conjugate, Sigma) and then sealed using 1 drop of VECTASHIELD Hard-Set Mounting Medium with DAPI (Vector Laboratories). Imaging was performed using a Nikon Eclipse 80i microscope equipped with a Photometrics CoolSnap HQ2 CCD camera. Data was analyzed by blinded observers and reported as the percent of SMA positive cells (average of 3 wells with 3 fields of view per well, total number of SMA positive cells divided by total number of cells as determined by DAPI).