AMENDMENT 002

QUESTIONS AND ANSWERS

Q2. Will the hydrogel tubes be provided for testing, if so how much variability is there for the dimensions? Will there be a few set diameters and accompanying lengths or is the entire range accounted for?

A2. The prototype will be tested at NRC and feed back will be given for design adjustment/ iteration. The entire range should be accounted for as NRC will be testing difference size (diameter, thickness and length).

Q3. Can the composition of the hydrogels and procedure for creating them be shared to accommodate proper testing. Specifics such as the Alginic Acid supplier and viscosity, along with the concentration being used would be beneficial. High and Low viscosity concentrations from different suppliers tend to net slightly different results.

A3. The mechanical range of the tubes (low viscosities) should be used as a guidance. It is true the material properties will change depending on composition, the bioreactor is expected to accommodate various composition and dimension range other than specific ones.

Q4. How consistent are the hydrogel tubes? Are there changes to the diameter or wall thickness throughout the length and is there potential for curved, rather than straight tubes.

A4. The 3D bioprinted tube will have a < 5 % size / thickness variability, there will be potential changes of curvature in segments but it can be considered as straight tubes within the testing length range. It will be a project with NRC feedbacks through the process to support building the details of the bioreactor.