Figure 1

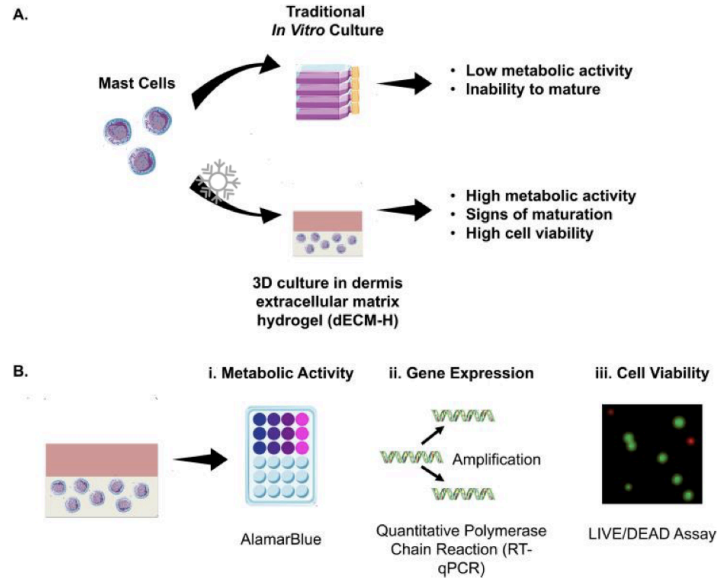

Figure 1: Graphical Abstract. A) Mast cells are difficult to culture via traditional cell culture techniques, such as cells grown two-dimensionally on tissue culture plastic flasks. Three-dimensional culture in porcine-derived dermis extracellular matrix hydrogels (dECM-H), offers an alternative platform for mast cell culture. B) The main design of the study begins with embedding mast cells into dECM-H. This culture platform was assessed by i. AlamarBlue to assess metabolic activity, ii. LIVE/DEAD Assay to assess cell viability, and iii. real time quantitative polymerase chain reaction (RT-qPCR) to measure gene expression.