ANTIGENIC PROTEIN IN MICROGRAVITY-GROWN HUMAN MIXED MŰLLERIAN TUMOR (LN1) CELLS PRESERVED IN RNA STABILIZING AGENT. Dianne K. Hammond[1], Jeanne Becker[2,3], T.F. Elliott[4], K. Holubec[4], T.L. Baker[4], J.E. Love[5] [1]Enterprise Advisory Services, Inc., Houston, TX; [2]National Space Biomedical Research Institute; [3]Baylor College of Medicine, Houston, TX; [4]Wyle Life Sciences, Houston, TX; [5]Biological Systems Office, NASA, Johnson Space Center, Houston, TX.

Cells treated with RNA*later*™ have previously been shown to contain antigenic proteins that can be visualized using Western blot analysis. These proteins seem to be stable for several months when stored in RNA stabilizer at 4°C. Antigenic protein can be recovered from cells that have been processed using an Ambion RNAqueous® kit to remove RNA. In this set of experiments, human mixed Műllerian tumor (LN1) cells grown on the International Space Station during Expedition 3 were examined for antigenic stability after removal of RNA. The cells were stored for three months in RNA*later*™ and RNA was extracted. The RNA filtrate containing the protein was precipitated, washed, and suspended in buffer containing sodium dodecyl sulfate (SDS). Samples containing equal concentrations of protein were loaded onto SDS-polyacrylamide gels. Proteins were separated by electrophoresis and transferred by Western blot to polyvinylidene fluoride (PVDF) membrane. The Western blots were stained with an enhanced chemiluminescent ECL® Plus detection kit (Amersham) and scanned using a Storm 840 gel image analyzer (Amersham, Molecular Dynamics). ImageQuant® software was used to quantify the densities of the protein bands. The ground control and flight LN1 cell samples showed a similar staining pattern over time with antibodies to vimentin, glyceraldehyde-3-phosphate dehydrogenase, and epithelial membrane antigens. (Grant support to J. Becker: NAG9-1341)