***Yeast Experiment Design 3:***

**Yeast in agar plates:**

We will use three separate plates to compare three different yeast strains. Each plate will be attached to a fabricated pole. The plates will be marked with a grid (to determine growth). The plates will be stabilized in layers between two adjoining walls of the ardulab. They will be covered with air exchange covers over the plate. The agar will be formulated to allow for slow growth aboard the ISS over the 30 day period.

*Yeast strains to be determined after class initial testing in October/November. Will be strain of brewing and/or baking yeast.*

*Agar to be formulated by Dr. Brian Stephens if necessary.*

**Temperature/Humidity Sensor:**

The temperature and humidity sensor will be placed the corner opposite the plates. Temperature and Humidity will be monitored and serve as comparative data for the experiment completed on Earth.

**Co2 sensor:**

Carbon dioxide sensor will be placed near the middle plate on the pole. This sensor will collect data on Carbon dioxide gas being released during the process of cellular respiration. This will be one piece of data to monitor which can help determine if yeast growth continues. Placing the monitor in the middle will help collect data from all three plates. Any decrease could be an indication that one or more of the yeast strains has died.

**Light:**

A light will be placed in the ardulab to insure there is enough light to get a quality image from the camera for data collection.

**Camera:**

We will use two high definition cameras. They will be installed in the two corners opposite the pole. One will be in the lower corner and one in the upper corner. The high def camera will be used to insure quality of the image.