Exploration Medical Capability

**STABILITY RISK**

**Gateway Lifecycle Milestones**

**DST Planning Milestones (PPBE19 proj)**

Rev PPBE20

**Question 1:**
What selection criteria or patient-related variables should be considered when selecting medications for a specific Design Reference Mission (DRM) forumulary?

**Question 2:**
Of the full set of medications selected for a DRM, which will be effective throughout the journey, and which will not?
# Exploration Medical Capability

## STABILITY RISK

**Rev PPBE19 + FY18Q2 Updates**

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<thead>
<tr>
<th>Question</th>
<th>FY16</th>
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### ES Summary

- **Shelf-Life Extension Research**
- **Predictive Stability Modeling** *(Shelf Life Estimation)*
- **Packaging Assessment**
- **Gap Closure Assessment**

### Pharmacy Recommendations

- **Real-Time Analyzer**
- **PK/PD Study**
- **Toxicity Studies**
- **Gap Closure Assessment**

### Future Projects

- **Gap Closure Assessment**
- **Future Projects**

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*Of the medications that do not remain stable for the full mission duration, can we characterize their likely effective shelf life on a specific DRM?*

**Question 3:**

- Can we provide a method to detect if medication has deviated from its initial labeled, and approved state, and ascertain safety and efficacy?

**Question 4:**

- If formulary medications for a specific DRM degrade, can we ascertain safety and efficacy?

**Question 5:**

- Do alternative methods exist for supplying formulary medications for a DRM?

**Question 7:**

- Can we modify existing properties of pharmaceuticals to minimize their resource footprint or improve their tolerance to the spaceflight environment?