HHC - Risk of Adverse Health Event Due to Altered Immune Response (Immune)

**Altered Immune Response (Immune)**

**IM1: Spaceflight Effects**
Does spaceflight alter immune function?

- Telomere Lengths
- Salivary Markers

**IM2: Immune Standard**
Is an improved immune standard needed?

- Food Physiology
- CHOICE II study

**IM3: Analog Diffinition**
Are there suitable analogs for immune dysregulation?

- Microbiota - ISS
- Im Mouse Tissues - ISS
- Mouse Ab Responses - ISS

**IM4: Long Duration**
What are the cumulative effects of chronic immune dysfunction on missions greater than six months?

- CHOICE-Coastal
- Immune CM Validation (Analog)

**IM5: Clinical Correlations**
What is the correlation of spaceflight immune changes during spaceflight with known clinical conditions?

- Host-Pathogen Interactions

**IM6: Multisystem**
What is the correlation of immune risks with other risks, particularly psychological stress, physical deconditioning, nutrition and/or radiation?

- Immune add-on to Cardiometabolic Vulnerabilities (Shea)

**Gateway Lifecycle Milestones**

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**Milestones Cross Prg. Integration**

- Delivery to OCHMO
- Delivery to Ops