The objectives of the Technology Watch process are to identify emerging, high-impact technologies that augment current Exploration Medical Capability (ExMC) Element, one of six elements within NASA’s Human Research Program (HRP), is charged with reducing the risk of the “inability to adequately recognize or treat an ill or injured crewmember” during an exploration mission. To address this risk, the Element must define requirements for crew health maintenance, develop treatment scenarios, extrapolate from the scenarios to health management modalities, evaluate the feasibility of these modalities, develop technology and informatics that will enable the availability of medical care and decision support systems.

The condition list is a “living document” that requires gaps, and conditions identified by knowledge and technology gaps that are derived from a discrete set of medical conditions that are most likely to occur on exploration missions. These gaps are addressed through technology development projects. Information management is a key aspect to this process where Tech Watch related meetings, research articles, collaborations and partnerships are tracked by the HRP’s Exploration Medical Capabilities (ExMC) Element. In 2011, ExMC will be introducing the Tech Watch external website and evidence wiki that will provide access to ExMC technology and knowledge gaps, technology needs and requirements documents.

The Exploration Medical Capability (ExMC) Element, one of six elements within NASA’s Human Research Program (HRP), is charged with reducing the risk of the “inability to adequately recognize or treat an ill or injured crewmember” during an exploration mission.

To address this risk, the Element must define requirements for crew health maintenance, develop treatment scenarios, extrapolate from the scenarios to health management modalities, evaluate the feasibility of these modalities, develop technology and informatics that will enable the availability of medical care and decision support systems.

There are approximately eighty conditions on the evidence-based medical condition list, approved by NASA’s Space Medicine Division in July 2009. The conditions were gathered from several sources: space flight drill incidents, conditions on the Shuttle medical checklist, conditions on the International Space Station medical checklist, expert opinion, and the conditions were prioritized by a panel of flight surgeons, physician astronaut, engineers, and scientists based on incidence, consequence, and mitigation capability.

The condition list is a “living document” that requires gaps, and conditions identified by knowledge and technology gaps that are derived from a discrete set of medical conditions that are most likely to occur on exploration missions. These gaps are addressed through technology development projects. Information management is a key aspect to this process where Tech Watch related meetings, research articles, collaborations and partnerships are tracked by the HRP’s Exploration Medical Capabilities (ExMC) Element. In 2011, ExMC will be introducing the Tech Watch external website and evidence wiki that will provide access to ExMC technology and knowledge gaps, technology needs and requirements documents.

The Exploration Medical Capability (ExMC) Element, one of six elements within NASA’s Human Research Program (HRP), is charged with reducing the risk of the “inability to adequately recognize or treat an ill or injured crewmember” during an exploration mission.

To address this risk, the Element must define requirements for crew health maintenance, develop treatment scenarios, extrapolate from the scenarios to health management modalities, evaluate the feasibility of these modalities, develop technology and informatics that will enable the availability of medical care and decision support systems.

There are approximately eighty conditions on the evidence-based medical condition list, approved by NASA’s Space Medicine Division in July 2009. The conditions were gathered from several sources: space flight drill incidents, conditions on the Shuttle medical checklist, conditions on the International Space Station medical checklist, expert opinion, and the conditions were prioritized by a panel of flight surgeons, physician astronaut, engineers, and scientists based on incidence, consequence, and mitigation capability.

The condition list is a “living document” that requires gaps, and conditions identified by knowledge and technology gaps that are derived from a discrete set of medical conditions that are most likely to occur on exploration missions. These gaps are addressed through technology development projects. Information management is a key aspect to this process where Tech Watch related meetings, research articles, collaborations and partnerships are tracked by the HRP’s Exploration Medical Capabilities (ExMC) Element. In 2011, ExMC will be introducing the Tech Watch external website and evidence wiki that will provide access to ExMC technology and knowledge gaps, technology needs and requirements documents.

The Exploration Medical Capability (ExMC) Element, one of six elements within NASA’s Human Research Program (HRP), is charged with reducing the risk of the “inability to adequately recognize or treat an ill or injured crewmember” during an exploration mission.

To address this risk, the Element must define requirements for crew health maintenance, develop treatment scenarios, extrapolate from the scenarios to health management modalities, evaluate the feasibility of these modalities, develop technology and informatics that will enable the availability of medical care and decision support systems.

There are approximately eighty conditions on the evidence-based medical condition list, approved by NASA’s Space Medicine Division in July 2009. The conditions were gathered from several sources: space flight drill incidents, conditions on the Shuttle medical checklist, conditions on the International Space Station medical checklist, expert opinion, and the conditions were prioritized by a panel of flight surgeons, physician astronaut, engineers, and scientists based on incidence, consequence, and mitigation capability.

The condition list is a “living document” that requires gaps, and conditions identified by knowledge and technology gaps that are derived from a discrete set of medical conditions that are most likely to occur on exploration missions. These gaps are addressed through technology development projects. Information management is a key aspect to this process where Tech Watch related meetings, research articles, collaborations and partnerships are tracked by the HRP’s Exploration Medical Capabilities (ExMC) Element. In 2011, ExMC will be introducing the Tech Watch external website and evidence wiki that will provide access to ExMC technology and knowledge gaps, technology needs and requirements documents.

The Exploration Medical Capability (ExMC) Element, one of six elements within NASA’s Human Research Program (HRP), is charged with reducing the risk of the “inability to adequately recognize or treat an ill or injured crewmember” during an exploration mission.

To address this risk, the Element must define requirements for crew health maintenance, develop treatment scenarios, extrapolate from the scenarios to health management modalities, evaluate the feasibility of these modalities, develop technology and informatics that will enable the availability of medical care and decision support systems.

There are approximately eighty conditions on the evidence-based medical condition list, approved by NASA’s Space Medicine Division in July 2009. The conditions were gathered from several sources: space flight drill incidents, conditions on the Shuttle medical checklist, conditions on the International Space Station medical checklist, expert opinion, and the conditions were prioritized by a panel of flight surgeons, physician astronaut, engineers, and scientists based on incidence, consequence, and mitigation capability.

The condition list is a “living document” that requires gaps, and conditions identified by knowledge and technology gaps that are derived from a discrete set of medical conditions that are most likely to occur on exploration missions. These gaps are addressed through technology development projects. Information management is a key aspect to this process where Tech Watch related meetings, research articles, collaborations and partnerships are tracked by the HRP’s Exploration Medical Capabilities (ExMC) Element. In 2011, ExMC will be introducing the Tech Watch external website and evidence wiki that will provide access to ExMC technology and knowledge gaps, technology needs and requirements documents.