

HRP Investigators' Workshop

The NASA Human Research Wiki – An Online Collaboration Tool

Yael Barr, M.D., M.P.H.¹

Jack Rasbury, M.S.²

Jordan Johnson, B.S.²

Kristina Barsten, B.S.³

Lynn Saile, R.N.²

Sharmi Watkins, M.D., M.P.H.¹

- 1 - The University of Texas Medical Branch, Galveston, Texas.**
- 2 - Wyle Science, Technology & Engineering Group, Houston, Texas.**
- 3 - Enterprise Advisory Services, Inc., Houston, Texas.**

February 14, 2012



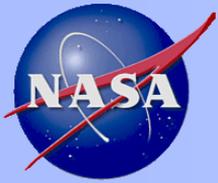
Overview

- Purpose of the Human Research Wiki website
- Wiki website goals
- Page creation
- Contributing authors
- Editorial and review process
- Wiki team
- Wiki editorial board
- Demonstration of the wiki's "Store Front" and "Collaboration" sides



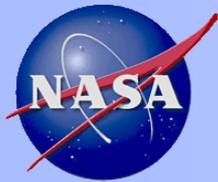
Purpose of the Human Research Wiki

- The Exploration Medical Capability (ExMC) element is one of six elements of the Human Research Program (HRP)
- ExMC is charged with decreasing the risk of:
“Inability to adequately recognize or treat an ill or injured crew member” for exploration-class missions
- In preparation for exploration-class missions, ExMC has compiled a large evidence base, previously available only to persons within the NASA community
- ExMC has developed the “NASA Human Research Wiki” in an effort to make the ExMC information available to the general public and increase collaboration within and outside of NASA



Purpose of the Human Research Wiki

- The ExMC evidence base is comprised of several types of data, including:
 - Information on more than 80 medical conditions which could occur during space flight
 - Derived from several sources
 - Including data on incidence and potential outcomes, as captured in the Integrated Medical Model's (IMM) Clinical Finding Forms (ClIFFs).
 - Approximately 25 gap reports
 - Identify any “gaps” in knowledge and/or technology that would need to be addressed in order to provide adequate medical support for these novel missions.



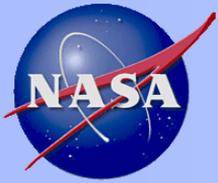
Goals of the Human Research Wiki

- To serve as a repository for medical evidence related to ExMC's risk
- To facilitate collaboration and knowledge sharing among the different HRP elements
- To provide a platform for allowing external subject matter experts (SMEs) to contribute to the current body of knowledge
- To preserve access control and oversight
 - Only credentialed users can contribute/author material
 - Edits are not visible to the public until approved
 - A peer-review process ensures accuracy and validity of information



Page Creation

- Medical Condition Pages
 - CliFF information (“Incidence and Outcomes” section)
 - Authored, revised, and edited by IMM personnel
 - ExMC information/analysis
 - Authored, revised, and edited by ExMC personnel
- Gap Reports
 - Written by ExMC personnel from the various NASA centers
 - Part of the ExMC TechWatch project
 - Revised and edited by TechWatch Clinical Lead
 - Reviewed by subject matter experts
- All pages reviewed and approved by a 7-member editorial board



Contributing Authors

- Subject matter experts within NASA
- Subject matter experts outside of NASA
 - Two routes
 - SMEs identified and solicited by ExMC
 - SMEs initiate contact with ExMC



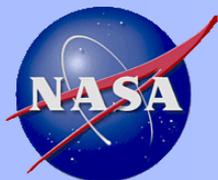
Editorial and Review Processes

- Contributors' credentials and experience verified prior to allowing editorial privileges
- Content added by external contributors will undergo peer review prior to incorporation into the evidence base
- Content will be reviewed on a scheduled basis



The Wiki Team

Name	Role	E-mail
Jack Rasbury	Wiki Project Manager	jrasbury@wylehou.com
Yael Barr	Wiki Clinical Lead	yael.barr-1@nasa.gov
Jordan Johnson	Wiki IT Support	jjohnson@wylehou.com
Grandin Bickham	Wiki IT Support	gbickham@wylehou.com
Lynn Saile	Wiki-IMM Integration Lead	lsaile@wylehou.com
Kristina Barsten	ExMC Project Manager	kbarsten@wylehou.com
Sharmi Watkins	ExMC Element Scientist	sharmila.watkins@nasa.gov
Tammie McGrath	ExMC Element Manager	tammie.l.mcgrath@nasa.gov



The Wiki's Editorial Board

	Board Member Name	Role
1.	Craig Kundrot	HRP representative
2.	Eric Kerstman	IMM clinical lead/ IMM wiki section editor
3.	Jeff Smith	Science Management Office representative
4.	Mary Fitts	Evidence Base Working Group and Export control representative
5.	Mary Wear	LSAH representative
6.	Sharmi Watkins	ExMC Element Scientist
7.	Yael Barr	Wiki clinical lead/ Editor-in-Chief



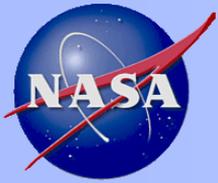
Website Demonstration

- Store Front website:

<http://humanresearchwiki.jsc.nasa.gov>

- Collaboration website:

<http://humanresearchwiki.jsc.nasa.gov/exmc>



Requesting Editorial Access

- Members of NASA's SLSD –

Please send us an email to: jsc-human-research-wiki@mail.nasa.gov

- Researchers and other interested parties external to SLSD –

Please fill and submit the Editorial Access Request Form which may be found on the Wiki's home page, or here:

[http://humanresearchwiki.jsc.nasa.gov/exmc/index.php?title=Editorial
_Access_Request_Form](http://humanresearchwiki.jsc.nasa.gov/exmc/index.php?title=Editorial_Access_Request_Form)



Thank You

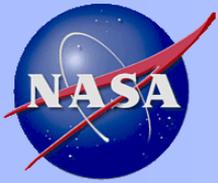


Backup Slides



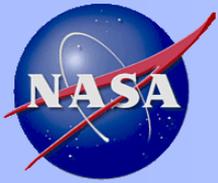
Plans for Dissemination

- Emails to SLSD and NSBRI personnel
- JSC Today
- Semantics for internet searches
- Investigator's Workshop 2012
- AsMA Annual Scientific Meeting 2012



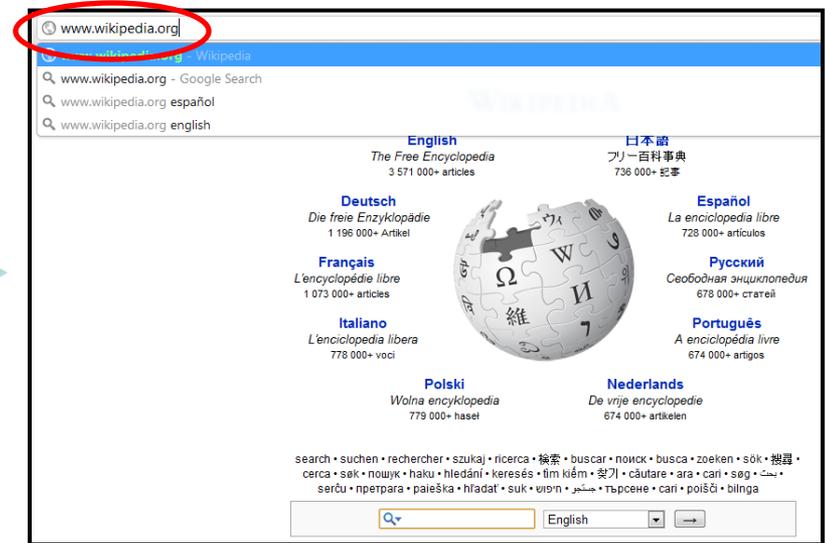
Wiki Basics

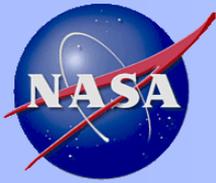
- A Wiki is simply an online collaboration tool
- Basic attributes of a traditional Wiki (e.g. Wikipedia):
 - Easy to access
 - Easy to contribute
 - Easy to create pages
 - Easy to add links to pages
 - Easy to retrieve/compare page revisions
 - Easy for authors to communicate
- For collaboration, all of these attributes are useful



Wiki Basics

- A Wiki is simply an online collaboration tool
- Basic attributes of a traditional Wiki (e.g. Wikipedia):
 - Easy to access
 - Easy to contribute
 - Easy to create pages
 - Easy to add links to pages
 - Easy to retrieve/compare page revisions
 - Easy for authors to communicate
- For collaboration, all of these attributes are useful





Wiki Basics

- A Wiki is simply an online collaboration tool
- Basic attributes of a traditional Wiki (e.g. Wikipedia):
 - Easy to access
 - Easy to contribute
 - Easy to create pages
 - Easy to add links to pages
 - Easy to retrieve/compare page revisions
 - Easy for authors to communicate
- For collaboration, all of these attributes are useful

work together in space, providing lessons for future multi-national missions.^{[22][32]}

Scientific research

Main article: [Scientific research on the ISS](#)

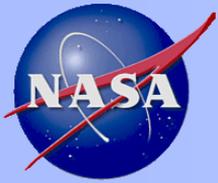
The ISS provides a platform to conduct experiments that require one or more of the unusual conditions present on the station. The primary fields of research include [human research](#), [space medicine](#), [life sciences](#), [physical sciences](#), [astronomy](#) and [meteorology](#).^{[10][11][12]} The 2005 [NASA Authorization Act](#) designated the American segment of the International Space Station as a national laboratory with the goal of increasing the use of the ISS by other federal agencies and the private sector.^[33]

Research on the ISS improves knowledge about the effects of microgravity on the human body and the environment.



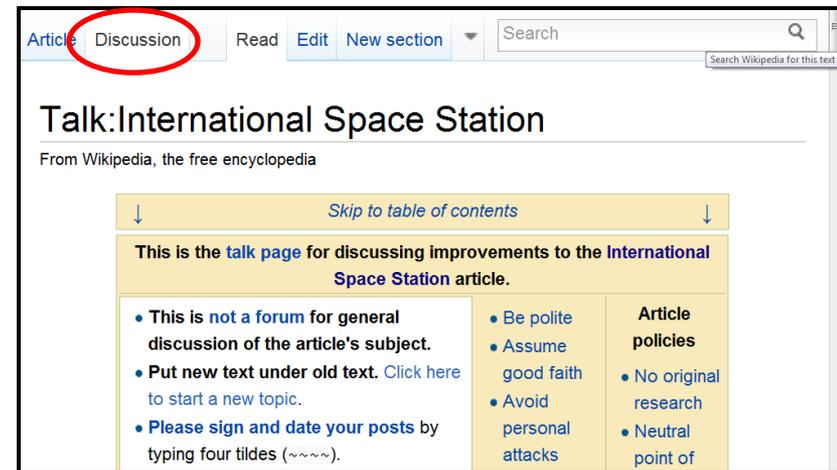
Expedition 8 Commander and Science Officer [Michael Foale](#) conducts an inspection of the [Microgravity Science Glovebox](#).

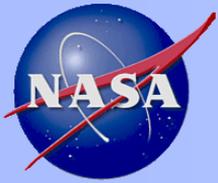
[\[edit\]](#)



Wiki Basics

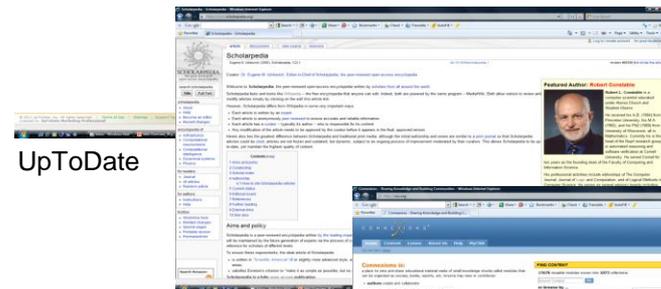
- A Wiki is simply an online collaboration tool
- Basic attributes of a traditional Wiki (e.g. Wikipedia):
 - Easy to access
 - Easy to contribute
 - Easy to create pages
 - Easy to add links to pages
 - Easy to retrieve/compare page revisions
 - Easy for authors to communicate →
- For collaboration, all of these attributes are useful





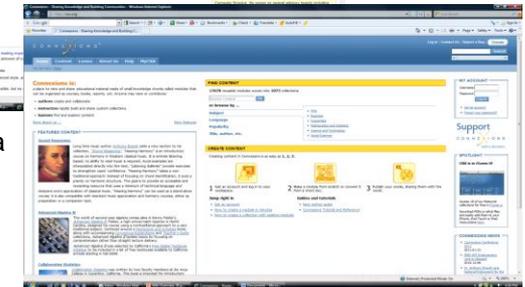
How is the Human Research Wiki Different?

- Access control and oversight
 - Only credentialed users can contribute/author material
- Peer-review process
 - To ensure the accuracy and validity of information
- Hierarchical structure
 - To facilitate navigation and searching
- A publication process
 - Ability to cite content as with any other journal article



UpToDate

Scholarpedia



Connexions