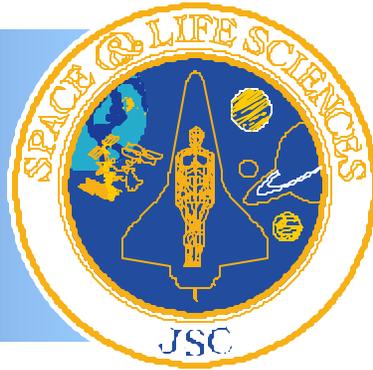


Advanced  
Technology  
Integration  
Group



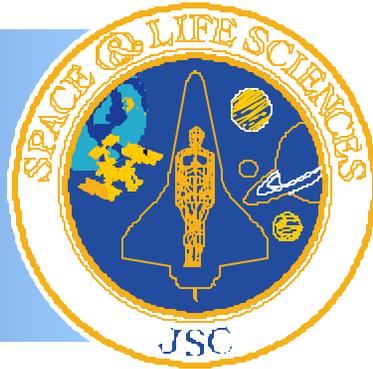
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**Presentation: ATIG  
Status Report**

# ACTIVITIES AND ACCOMPLISHMENTS

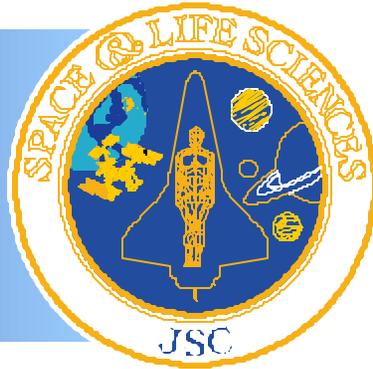
Advanced Technology Integration Group

Status Report presented to the Decadal Planning Team  
March through September 2000



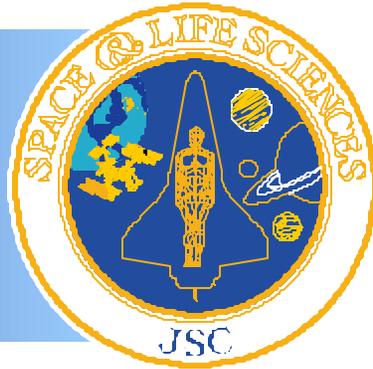
## Overview

- § The Advanced Technology Integration Group (ATIG) facilitates the development and use of advanced technologies in support of the goals of the Decadal Planning Team.
- § The ATIG model of technology integration asserts that development funds can be obtained competitively through joint proposals and the like.
- § Such an approach allows NASA personnel to be collaborators or partners in the development of technologies vital to their work, without devoting themselves to full-time technology development.



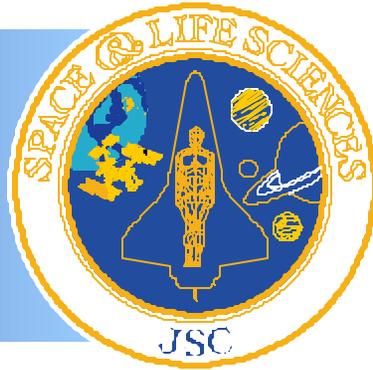
## Objectives

- § **Identify NASA technology needs** and present them to interested communities.
- § **Match NASA needs** with technologies that are currently in development by other government or private organizations.
- § **Identify and assess technology developers** for their interest in collaborating with NASA. Presently, potential technology developers include:
  - other NASA centers,
  - governmental and industrial organizations, including the Departments of Energy and Defense, the National Institutes of Health, the Defense Advanced Research Projects Agency, the National Science Foundation, and the national laboratories,
  - the National Space Biomedical Research Institute (NSBRI),
  - NASA Technology Transfer Offices/Centers, and
  - academic institutions.



## Objectives, continued

- § **Facilitate partnerships and collaborations** between NASA and technology developers by:
  - planning conferences, workshops, or meetings to unite interested communities,
  - coordinating site visits to selected laboratories and facilities,
  - hosting guest speakers at Johnson Space Center, and
  - maintaining an online library of SLSD technology development and research areas.
- § **Educate both the NASA community and the larger biomedical communities** regarding the ATIG model of technology integration.
- § **Create an infrastructure for ATIG**, to include tracking data sheets and regular presentations to NASA management on progress.



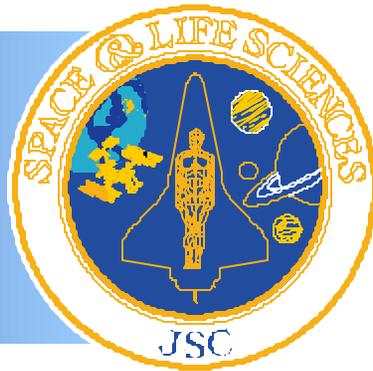
## Key Accomplishments

### § HEDS Technology/Commercialization Initiative

- The ATIG organized and prepared HTCI inputs gathered from multiple sources of expertise including: Advanced Life Support System, Environmental Monitoring and Control, Habitability and Human Factors, Adaptation and Countermeasures, Space Medicine and Health Care Systems, Radiation Risk Protection and Mitigation, and Biological Systems
- The result is compilation of approximately 40 templates that have been forwarded to HTCI

### § Staffing and Resource Requisition

- Hired full-time, in-house contractor hired to complete ATIG staffing needs (6/8/00)
- Received suite of presentation and recording hardware/software, including 2 sets each of a wireless microphone, an LCD projector, and a laptop for capturing NASA presentations (8/30/00)



## Key Accomplishments, continued

### § **Site Visits**

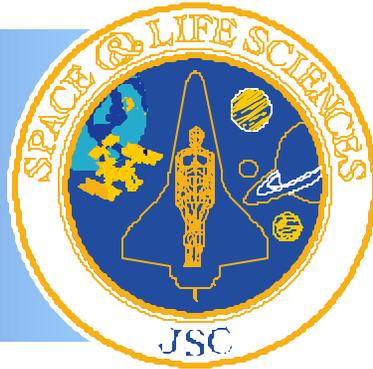
- Oak Ridge National Laboratories (ORNL; Knoxville, Tennessee)
- Biotechnology Division of the National Institute of Standards and Technology (Gaithersburg, Maryland)
- Medical Research and Materiel Command (Fort Detrick, Maryland)

### § **Facilitation of Joint Proposals and Other Collaborative Relationships** (approximately 37 joint proposals submitted, projects funded, and Space Act Agreements finalized)

### § **Facilitation of Intra-Center and Biomedical Community Partnerships**

- Houston Center for Advanced Patient Simulation and NASA JSC
- Jet Propulsion Laboratory (JPL) and the California Institute of Technology (Caltech) Glenn Research Center (GRC)
- Ames Research Center (ARC, the NASA Center of Excellence for Information Systems)
- National Institute of Occupational Safety and Health (NIOSH)





## Key Accomplishments, continued

### § **Biomedical Technologies Catalogue**

- Coordinated and research input for JSC-SA inputs to the NASA Technology Inventory Database (NTID)
- Drafted first outline for the product

### § **Conference Planning and Participation**

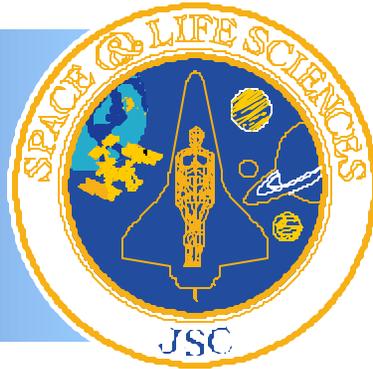
- Smart Systems 2000 (held 8/5-8/00)
- SmartSystems 2000 Special Workshop on Medical Robotics
- NanoSpace 2001 (to be held 2/01)
- Human Systems 2001 (to be held mid-2001)
- Presentations for the Advanced Technology Working Group Fall Meeting (11/00)

### § **ATIG Website and Outreach Materials**

- Created a two-page pamphlet describing ATIG mission and objectives and a guide to informative NASA web sites
- Defined requirements for ATIG web site and received audiovisual recording equipment



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## ATIG Members

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