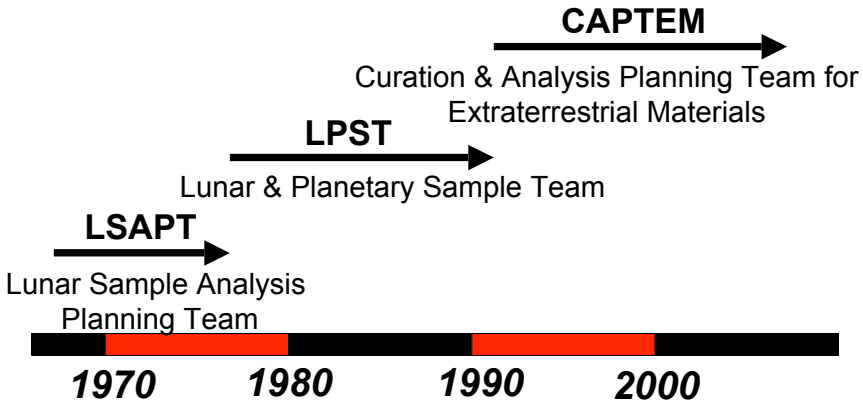
"Dedicated to Maximizing Planetary Sample Science While Protecting the Integrity of NASA Collected Extraterrestrial Materials"

Report to the
Planetary Science Subcommittee
July 9-10, 2009

CAPTEM

CAPTEM HERITAGE



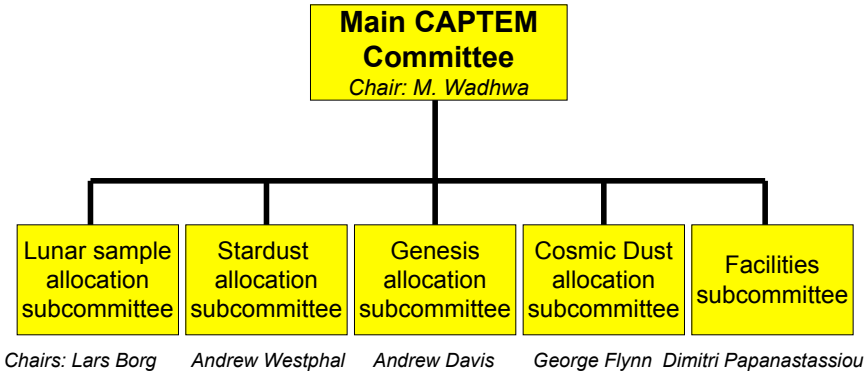
CAPTEM

CAPTEM FUNCTIONS

- Primary role in the allocation of NASA collected planetary materials to the broader scientific community
- Provides Analysis and Guidance for NASA Sample Curation
- Provides sample science expertise as needed
- Sponsors community-initiated sample science based initiatives, workshops, white papers

CAPTEM

CAPTEM STRUCTURE



CAPTEM
Curation and Analysis Planning Team for Extraterrestrial Materials

Sample Allocations Since Oct 2008

- **Lunar Allocations:**
  - 18 requests: 15 approved, total 138 samples
- **Stardust Allocations:**
  - 104 requests: 86 approved, total 86 (keystones only) or 522 (TEM grids, keystones, blanks, wall sections, foils, etc.)
- **Genesis Allocations:**
  - 13 requests: 13 approved, total 40 samples
- **IDP Allocations**
  - 8 requests: 7 approved, total 34 samples

CAPTEM
Curation and Analysis Planning Team for Extraterrestrial Materials

Future Issues for Consideration

- Input to the Planetary Science Decadal Survey on future potential sample returns from small bodies, Moon and Mars
- Initiation of an independent review of the curation of the Stardust samples
- Addressing the issue (in collaboration with ESMD personnel) of a recent increase in demand for lunar samples for studies in anticipation of future lunar exploration

CAPTEM
Curation and Analysis Planning Team for Extraterrestrial Materials

Decadal Survey: White Papers

- Technologies for sample return and curation. Leads: Andrew M. Davis, Andrew Westphal
- Sample return from the Moon. Leads: Clive Neal, Allan Treiman
- Sample return from Mars. Leads: Lars Borg, Mini Wadhwa
- Sample return from asteroids and comets. Leads: Scott Messenger, Mike Zolensky
- Will be posted on the LPI website for general sample science community input by mid August and revision prior to submission in mid September

CAPTEM
Curation and Analysis Planning Team for Extraterrestrial Materials

New Initiatives under Consideration

- Tying sample science to the latest orbital data sets from Moon and Mars
- New opportunities for upper stratospheric timed collections (new cometary materials)
- Mining the Apollo collections for “new” samples: Apollo special samples and lunar breccias

INTERNATIONAL REACH

- A substantial proportion of sample requests handled by CAPTEM are from international research groups (e.g., 38% of Stardust requests this last round)
- Involvement of the sample curation personnel in international missions (Hayabusa)
- Planning of future Mars Sample Return (quarantine, curation and allocation) with greater international participation (Mars Exploration Joint Initiative)