

Food Packaging Research Funding Request Form

All qualified responsible sources may submit a proposal, which shall be considered by the FTCSC

NASA Food Technology Commercial Space Center

Iowa State University
2901 South Loop Drive, Suite 3700
Ames, IA 50010-8632
www.ag.iastate.edu/centers/ftsc

Deadline: March 7, 2005

Requests need to be sent electronically as a Word file to Sharon Colletti (sharonc@iastate.edu) by **March 7, 2005**.

The goal of the NASA FTCSC **Food Packaging Research Funding Request** program is to establish a working relationship with food packaging experts and to help them secure the preliminary results or equipment to seek larger extramural funding that will address the NASA space food packaging challenge. Please refer to the **Space Food Packaging Fact** brochure that can be found at the bottom of our NASA insights web page <http://www.ag.iastate.edu/centers/ftsc/>.

The current packaging material employed by NASA was designed for Shuttle with a 9-month shelf life requirement. Thus, for these same space foods to meet the 1-year shelf life requirement for the International Space Station they are being over-wrapped with a plastic/foil laminate, which adds waste and weight. For long duration mission to Mars, a 5-year shelf life is required with a retortable pouch that is metal free for microwaving and trash disposal (combustion).

Specific research objectives for next generation food packaging are:

- Reduced mass,
- Metal free and clear packaging for foods with a 1 to 5 year shelf life,
- Thermoformable for 1-year shelf life,
- Metal free retortable pouch for 5-year shelf life foods,
- Little to no off-gassing of chemicals, and
- Combustible.

Explicit objectives:

- These funds are limited to a one-time support of up to \$25,000 that must be utilized by **September 1, 2005**.
- Travel funds are available to develop joint proposals with colleagues from other universities. (For ISU faculty there are additional funds available from the College of Agriculture for developing collaboration with 1890 institutions and Tuskegee University.)
- Proposals with matching funds will be looked upon favorably during evaluation.
- Project final reports will be due **September 1, 2005**.

All funded principal investigators are required to submit one of the following within one year of funding.

- A federal grant proposal to advance targeted space food challenge of research in the PI's lab. This is not limited to a NASA NRA submission. (Grants from other federal agencies are preferred.)
- A publication detailing research on a focused space food challenge within their currently funded projects. NASA FTCSC support must be acknowledged in all publications and reprints must be provided to FTCSC office.
- Preliminary data to help develop a research project with one of NASA FTCSC's commercial partners. An e-mail or letter from the collaborating partner is helpful but not required.

PI's will be informed of the NASA FTCSC Scoping Committee decision on funding by May 1.

Proposal Format

A. Title

B. Principal Investigator(s)

Faculty name(s)
University
Address(s)
Phone number(s)
Fax number(s)
E-mail address(s)

C. Specific space food packaging challenge being addressed

Reduced mass,
Metal free packaging for foods with a 1 to 5-year shelf life,
Thermoformable for 1-year shelf life,
Metal free retortable pouch for 5-year shelf life foods,
Little to no off-gassing, and
Combustible.

D. Collaborating NASA FTCSC Commercial Partner (name and research area/topic being developed for NASA Johnson Space Center)

E. Description of project goal and objectives (limited to one page maximum of text, single spaced, 12 point type). Description must include the following:

Proposed start date will be **May 1, 2005** with a completion date no later than **September 1, 2005**

Clearly stated research goal
Specific objectives listed
Brief description of research procedures
Expected outcome
References can be included on a separate page

F. Budget

Supplies
Travel
Services and fees
Equipment
List matching funds if available
Funds can be used to support graduate students or hourly help
Non-ISU projects will be a subcontract and can charge indirect costs
Total (not to exceed \$25,000 for all projects)

G. List the specific granting agency, section, and submission due date, NASA FTCSC commercial partner, and/or publication journal targeted by this research

H. List any NASA FTCSC-funded equipment employed by the project

I. A final report is required for all funded projects

- A final report is required and due **September 1, 2005**. The report will be a maximum of one page and is to be sent electronically as a Word file to Sharon Colletti (sharonc@iastate.edu).
- A copy of all grants and publications submitted based on this support must be provided to NASA FTCSC. For ISU faculty, NASA FTCSC **must** sign your gold sheet.

J. Two-page CV including publications list for past five years

K. Current grants and pending (any format is acceptable)