

REIMBURSABLE SPACE ACT AGREEMENT  
BETWEEN  
BIOSERVE SPACE TECHNOLOGIES  
AND  
NASA  
FOR  
UTILIZATION OF THE INTERNATIONAL SPACE STATION AS A NATIONAL LAB

ARTICLE 1. AUTHORITY AND PARTIES

In accordance with The National Aeronautics and Space Act of 1958, as amended (42 U.S.C. 2473 (c)), this Agreement is entered into by The National Aeronautics and Space Administration located at 300 E Street SW, Washington, DC 20546 (hereinafter referred to as "NASA") and the Regents of the University of Colorado, a body corporate, having its principal office at 1800 Grant Street 8th Floor, Denver, CO 80203, acting on behalf of BioServe Space Technologies, (hereinafter referred to as "UC/BioServe" or "Partner"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE AND NASA'S COMMITMENT

NASA plans to operate a share of the U.S. accommodations on the International Space Station (ISS) as a national laboratory in accordance with the NASA Authorization Act of 2005. To fulfill this mandate NASA released an announcement entitled the "National Lab Opportunity - Opportunity for the use of the International Space Station by U.S. Non-Government Entities for Research and Development and Industrial Processing Purposes." UC/BioServe responded to that announcement with a proposal to further utilize hardware existing on the ISS through a business that could further exploit that hardware to demonstrate and serve as pathfinders for the research and development (R&D) use of the ISS. The scope of the experiments and processes to occur as part of this proposal can reach multiple industry sectors and also can enable the use of the allotted space by educational institutions. In addition to UC/BioServe serving as a path to enable proof of concept research and development during the assembly phase of the ISS UC/BioServe will conduct research in a variety of areas potentially including countermeasure development for the deleterious effects of space flight, cell culture, protein crystal growth, microorganism and virus research, seed germination and plant development, tissue engineering and biomaterials.

In light of the existing hardware and proven business model, NASA is entering into a Space Act Agreement with UC/BioServe in which NASA will provide on-orbit resources and provide limited launch opportunities, as defined in Article 3 - Responsibilities. This agreement will enable early proof-of-concept opportunities for any future space-based products/services.

UC/BioServe's existing shared-cost business model and proven technical performance will allow multiple companies that have currently proposed, or may propose in the future, a model for proof of concept testing before exploring larger and more complex space based research and development and industrial processing applications planned for the ISS post-assembly period.

### ARTICLE 3. RESPONSIBILITIES

#### A. UC/BioServe will use reasonable efforts to:

1. Conduct research and development during the assembly phase of the ISS in a variety of areas potentially including countermeasure development for the deleterious effects of space flight, cell culture, protein crystal growth, microorganism and virus research, seed germination and plant development, tissue engineering and biomaterials.
2. Identify and engage Industry customers that have an interest in research and development on-board the ISS.
3. Enable multiple industry sectors as well as educational institutions an opportunity to conduct research and development within available UC/BioServe space flight hardware on board the ISS.
4. Ensure the majority of the research and development conducted in UC/BioServe facilities has commercial support or applications.
5. Utilize all opportunities made available to UC/BioServe for research and development, or education
6. Conduct all flight research and development in accordance with NASA payload requirements.
7. Provide a selection process for customers that includes giving the highest priority to customers with NASA agreements as part of the utilization of the ISS as a National Lab. NASA retains the right to review and approve selected customers.
8. Provide NASA with Operational Reports on all payloads flown under this agreement.
9. Provide NASA with Reports on and findings from the research and development conducted with payloads flown under this agreement.
10. Ensure that all products and services supplied to UC/BioServe customers under this agreement are supplied on a cost recovery basis. UC/BioServe's cost recovery shall include all costs associated with supply services to their customers.

#### B. NASA/will use reasonable efforts to:

1. For Phase A (the remaining ISS assembly phase) provide UC/BioServe a minimum manifest of the equivalent of 2 Commercial Generic Bioprocessing Apparatus Science Inserts (CSIs) per space shuttle flight (as stated in Article 3) for the remaining assembly phase of the International Space Station to enable path finder research and development. NASA, at its discretion, may meet the minimum manifest requirement through a reallocation of resources between shuttle missions and ISS increments in order to achieve the equivalent total manifest minimum requirement of 2 CSIs per mission.

For Phase B (post assembly phase) provide UC/BioServe on-orbit manifested space on the ISS. It is anticipated that UC/BioServe will arrange for flight to the ISS through commercial providers during Phase B.

2. Provide UC/BioServe appropriate on-orbit shuttle and ISS resources to allow UC/BioServe and its customers to effectively conduct research and development on the ISS pre- and post-assembly complete, at NASA's discretion.

3. Assist UC/BioServe to identify potential customers for the flight opportunities and ISS research capabilities, including providing technical support to the customers on the proposed payloads. UC/BioServe selected payloads are subject to NASA approval.

4. Assist UC/BioServe to identify and make available ground-based pre-flight and post-flight resources at launch and primary landing or alternate landing sites. Assistance will include providing, at a to be negotiated cost to UC/BioServe, Space Life Science Lab (SLSL) resources at NASA's discretion or access to Space Station Processing Facility (SSPF) resources - whichever is more suited for the research to be done. This will include access to needed facilities and personnel as required to set-up labs, and operate and conduct work for each space flight mission on which UC/BioServe is manifested for pre-flight and post-flight payload recovery and processing.

5. Work with UC/BioServe to identify transportation services by communicating with possible vendors that NASA has provided UC/BioServe with a commitment of on-orbit space allocations. Such communication to be performed at the request of UC/Bioserve

6. Provide UC/BioServe access to NASA's inventory of cold stowage systems.

#### ARTICLE 4. SCHEDULE AND MILESTONES

The planned major milestones for the activities defined in the "Responsibilities" clause are as follows:

##### Phase A - Pre-Assembly Complete Proof of Concept - Space Shuttle Flights

STS-124/1J 5/31/08  
STS-126/ULF2 10/16/08  
STS-119/15A 12/4/08  
STS-127/2J/A 3/12/09  
STS-128/17A 4/30/09  
STS-129/ULF3 8/09  
STS-130/19A 10/09  
STS-131/ULF4 2/10 (contingency logistics flight- not yet official)  
STS-132/20A 4/10  
STS-133/ULF5 7/10 (contingency logistics flight- not yet official)

##### Phase A - Deliverables

Document the selection process referenced in A. 7. above.  
Description of research objectives for each flight.

Operational Reports\* - 30 days from flight Completion.

Findings Reports\* - 365 Days from flight Completion.

Notification of commercial development, patents, and products that result from ISS research whenever such accomplishments are documented.

Phase B - Post-Assembly Complete - Commercial Launch Providers

Launch opportunities are up to UC/BioServe and their launch provider.

Phase B – Deliverables

Document the selection process referenced in A. 7. above.

Description of research objectives for each manifested payload.

Operational Reports\* - 30 days from flight Completion

Findings Reports\* - 365 Days from flight Completion

Notification of commercial development, patents, and products that result from ISS research whenever such accomplishments are documented.

\* Operational Reports shall consist of hardware performance during operations while conducting the research. It will include details such as anomalies and functional performance achieved v. planned.

\* Finding Reports shall consist of , or contain information on, the results of the research and the analysis of the samples.

## ARTICLE 5. FINANCIAL OBLIGATIONS

1. UC/BioServe agrees to reimburse NASA any estimated costs under Article 3 for NASA to carry out its responsibilities according in section 3.B.4 under this Agreement. In no event will NASA transfer any U.S. Government funds to UC/BioServe under this Agreement. Payment must be made by UC/BioServe in advance of initiation of NASA's efforts.

Lumpsum Advance payments shall be scheduled to ensure that funds are resident with NASA before Federal obligations are incurred in support of this Agreement.

2. Payment shall be made in the form of a check payable to NASA Shared Service Center (NSSC) and sent to:

NASA Shared Service Center (NSSC)-FMD Accounts Receivable  
Attn: For the Accounts of NASA HQ  
Bldg. 1111, C Road  
Stennis Space Center, MS 39529

All payments shall be marked "Payment for SAA0-SOMD-3602."

3. Although NASA will make a good faith effort to accurately estimate its costs, it is understood that NASA provides no assurance that the proposed effort under this Agreement will be accomplished for the provided estimated amount. Should the effort cost more than the estimate, Partner will be advised by NASA as soon as possible. Partner shall pay all costs incurred and

have the option of canceling the remaining effort, or providing additional funding in order to continue the proposed effort under the revised estimate. Should this Agreement be terminated, or the effort completed at a cost less than the agreed-to estimated cost, NASA shall account for any unspent funds within (1) year after completion of all effort under this Agreement, and promptly thereafter, return any unspent funds to Partner.

4. Notwithstanding any other provision of this Agreement, all activities under or pursuant to this Agreement are subject to the availability of funds, and no provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, Title 31 U.S.C. § 1341.

#### ARTICLE 6. PRIORITY OF USE

Any schedule or milestone in this Agreement is estimated based upon the Parties' current understanding of the projected use of the test facilities and equipment by NASA personnel. In the event NASA's projected usage changes, UC/BioServe shall be given reasonable notice of that change, so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA usage of the test facilities, equipment, and personnel shall have priority over the usage planned in this Agreement. Should a conflict arise, NASA in its sole discretion shall determine whether to exercise that priority. Likewise, should a conflict arise as between two commercial users, NASA, in its sole discretion, shall determine the priority as between the two users. This Agreement does not obligate NASA to seek alternative government property or services under the jurisdiction of NASA at other locations.

#### ARTICLE 7. NONEXCLUSIVITY

This Agreement is not exclusive; accordingly, NASA may enter into similar Agreements for the same or similar purpose with other U.S. private or public entities.

#### ARTICLE 8. LIABILITY AND RISK OF LOSS

1. The objective of this article is to establish a cross-waiver of liability in the interest of encouraging participation in the exploration, exploitation, and use of outer space through the International Space Station (ISS). The Parties intend that the cross-waiver of liability be broadly construed to achieve this objective.
2. For the purposes of this Article:
  - a. The term "Damage" means:
    - (i) Bodily injury to, or other impairment of health of, or death of, any person;
    - (ii) Damage to, loss of, or loss of use of any property;
    - (iii) Loss of revenue or profits; or
    - (iv) Other direct, indirect, or consequential Damage.
  - b. The term "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries Payloads or persons, or both.
  - c. The term "Partner State" includes each Contracting Party for which the Agreement Among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the

United States of America concerning Cooperation on the Civil International Space Station (IGA) has entered into force, pursuant to Article 25 of the IGA or pursuant to any successor Agreement. A Partner State includes its Cooperating Agency. It also includes any entity specified in the Memorandum of Understanding (MOU) between NASA and the Government of Japan to assist the Government of Japan's Cooperating Agency in the implementation of that MOU.

d. The term "Payload" means all property to be flown or used on or in a Launch Vehicle or the ISS.

e. The term "Protected Space Operations" means all launch or Transfer Vehicle activities, ISS activities, and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of this Agreement, the IGA, MOUs concluded pursuant to the IGA, and implementing arrangements. It includes, but is not limited to:

(i) Research, design, development, test, manufacture, assembly, integration, operation, or use of launch or Transfer Vehicles, the ISS, Payloads, or instruments, as well as related support equipment and facilities and services; and

(ii) All activities related to ground support, test, training, simulation, or guidance and control equipment and related facilities or services. "Protected Space Operations" also includes all activities related to evolution of the ISS, as provided for in Article 14 of the IGA. "Protected Space Operations" excludes activities on Earth which are conducted on return from the ISS to develop further a Payload's product or process for use other than for ISS-related activities in implementation of the IGA.

f. The term "Related Entity" means:

(i) A contractor or subcontractor of a Party or a Partner State at any tier;

(ii) A user or customer of a Party or a Partner State at any tier; or

(iii) A contractor or subcontractor of a user or customer of a Party or a Partner State at any tier.

The terms "contractor" and "subcontractor" include suppliers of any kind.

The term "Related Entity" may also apply to a State, or an agency or institution of a State, having the same relationship to a Partner State as described in paragraphs (2)(f)(i) through (2)(f)(iii) of this article or otherwise engaged in the implementation of Protected Space Operations as defined in paragraph (2)(e) above.

g. The term "Transfer Vehicle" means any vehicle that operates in space and transfers Payloads or persons or both between two different space objects, between two different locations on the same space object, or between a space object and the surface of a celestial body. A Transfer Vehicle also includes a vehicle that departs from and returns to the same location on a space object.

### 3. Cross-waiver of liability:

a. Each Party agrees to a cross-waiver of liability pursuant to which each Party waives all claims against any of the entities or persons listed in paragraphs (3)(a)(i) through (3)(a)(iv) of this article based on Damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The cross-waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:

(i) Another Party;

(ii) A Partner State other than the United States of America;

(iii) A Related Entity of any entity identified in paragraph (3)(a)(i) or (3)(a)(ii) of this article;

or

(iv) The employees of any of the entities identified in paragraphs (3)(a)(i) through (3)(a)(iii) of this article.

b. In addition, each Party shall, by contract or otherwise, extend the cross-waiver of liability, as set forth in paragraph (3)(a) of this article, to its Related Entities by requiring them, by contract or otherwise, to:

(i) Waive all claims against the entities or persons identified in paragraphs (3)(a)(i) through (3)(a)(iv) of this article; and

(ii) Require that their Related Entities waive all claims against the entities or persons identified in paragraphs (3)(a)(i) through (3)(a)(iv) of this article.

c. For avoidance of doubt, this cross-waiver of liability includes a cross-waiver of claims arising from the Convention on International Liability for Damage Caused by Space Objects, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.

d. Notwithstanding the other provisions of this article, this cross-waiver of liability shall not be applicable to:

(i) Claims between a Party and its own Related Entity or between its own Related Entities;

(ii) Claims made by a natural person, his/her estate, survivors or subrogees (except when a subrogee is a Party to this Agreement or is otherwise bound by the terms of this cross-waiver) for bodily injury to, or other impairment of health of, or death of, such person;

(iii) Claims for Damage caused by willful misconduct;

(iv) Intellectual property claims;

(v) Claims for Damage resulting from a failure of a Party to extend the cross-waiver of liability to its Related Entities, pursuant to paragraph (3)(b) of this article; or

(vi) Claims by a Party arising out of or relating to another Party's failure to perform its obligations under this Agreement.

e. Nothing in this article shall be construed to create the basis for a claim or suit where none would otherwise exist.

## ARTICLE 9. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

### 1. General

(a) "Related Entity" as used in this Data Rights clause, means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner that is assigned, tasked, or contracted with to perform specified NASA or Partner activities under this Agreement.

(b) "Data," as used in this Data Rights clause, means recorded information, regardless of form, the media on which it may be recorded, or the method of recording. The term includes, but is not limited to, data of a scientific or technical nature, computer software and documentation thereof, and data comprising commercial and financial information.

(c) "Proprietary Data," as used in this Data Rights clause, means Data embodying trade secrets or comprising commercial or financial information that is privileged or confidential.

(d) The Data rights set forth herein are applicable to employees of Partner and employees of any Related Entity of Partner. Partner shall ensure that its employees and employees of any Related Entity that perform Partner activities under this Agreement are aware of the obligations under this clause and that all such employees are bound to such obligations.

- (e) Data exchanged between NASA and Partner under this Agreement will be exchanged without restriction as to its disclosure, use, or duplication except as otherwise provided in this clause.
- (f) No preexisting Proprietary Data will be exchanged between the Parties under this Agreement unless specifically authorized in this clause or in writing by the owner of the Proprietary Data.
- (g) In the event that Data exchanged between NASA and Partner include a restrictive notice that NASA or Partner deems to be ambiguous or unauthorized, NASA or Partner may notify the other Party of such condition. Notwithstanding such a notification, as long as the restrictive notice provides an indication that a restriction on use or disclosure was intended, the Party receiving such Data will treat the Data pursuant to the requirements of this clause unless otherwise directed in writing by the Party providing such Data.
- (h) Notwithstanding any restriction on use, disclosure, or reproduction of Data provided in this clause, the Parties will not be restricted in the use, disclosure, or reproduction of Data provided under this Agreement that:
- (i) is publicly available at the time of disclosure or thereafter becomes publicly available without breach of this Agreement;
  - (ii) is known to, in the possession of, or developed by the receiving Party independent of carrying out the receiving Party's responsibilities under this Agreement and independent of any disclosure of, or without reference to, Proprietary Data or otherwise protectable Data hereunder;
  - (iii) is received from a third party having the right to disclose such information without restriction; or
  - (iv) is required to be produced or released by the receiving Party pursuant to a court order or other legal requirement.
- (i) If either NASA or Partner believes that any of the events or conditions that remove restriction on the use, disclosure, or reproduction of the Data apply, NASA or Partner will promptly notify the other Party of such belief prior to acting on such belief, and, in any event, will notify the other Party prior to an unrestricted use, disclosure, or reproduction of such Data.
- (j) Disclaimer of Liability: Notwithstanding any restriction on use, disclosure, or reproduction of Data provided in this clause, NASA will not be restricted in, nor incur any liability for, the use, disclosure, or reproduction of any Data not identified with a suitable restrictive notice in accordance with paragraphs 2 and 8 of this clause or of any Data included in Data which Partner has furnished, or is required to furnish to the U.S. Government without restriction on disclosure and use.
- (k) Partner may use the following, or a similar, restrictive notice as required by paragraphs 2 and 8 of this clause. In addition to identifying Proprietary Data with such a restrictive notice, Partner should mark each page containing Proprietary Data with the following, or a similar, legend:  
"Proprietary Data – use and disclose only in accordance with notice on title or cover page."

#### Proprietary Data Notice

These data herein include "Background Data" or "Data Produced by Partner under a Space Act Agreement" in accordance with the Data Rights provisions under Space Act Agreement and embody Proprietary Data. In accordance with the Space Act Agreement, NASA will use reasonable efforts to maintain the data in confidence and limit use, disclosure, and reproduction by NASA and any Related Entity of NASA in accordance with restrictions identified in the Space Act Agreement.

#### 2. Data First Produced by Partner Under this Agreement



In the event Data first produced by Partner in carrying out Partner responsibilities under this Agreement is furnished to NASA, and Partner considers such Data to be Proprietary Data, and such Data is identified with a suitable restrictive notice, NASA will use reasonable efforts to maintain the Data in confidence and such Data will be disclosed and used by or on behalf of the U.S. Government (under suitable protective conditions) only for U.S. Government purposes.

### 3. Data First Produced by NASA Under this Agreement

Except for data disclosing an invention owned by NASA for which patent protection is being considered, in the event Partner requests that Data first produced by NASA (or any Related Entity of NASA) in carrying out NASA's responsibilities under this Agreement be maintained in confidence, and to the extent NASA determines that such Data would be Proprietary Data if it had been obtained from Partner, NASA will mark such Data with a restrictive notice and will maintain such marked Data in confidence for a period of 2 years after development of the Data, with the express understanding that during the aforesaid restricted period such marked Data may be disclosed and used (under suitable protective conditions) by or on behalf of the U.S. Government for U.S. Government purposes only, and thereafter for any purpose whatsoever without restriction on disclosure and use. Partner agrees not to disclose such marked Data to any third party without NASA's written approval until the aforesaid restricted period expires.

### 4. Publication of Results

Recognizing that section 203 of the National Aeronautics and Space Act of 1958 (42 U.S.C. § 2473), as amended, requires NASA to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof, and that the dissemination of the results of NASA activities is one of the considerations for this Agreement, the Parties agree to coordinate proposed publication of results with each other in a manner that allows each Party a reasonable amount of time to review and comment on proposed publications.

### 5. Data Disclosing an Invention

In the event Data exchanged between NASA and Partner discloses an invention for which patent protection is being considered, the furnishing Party specifically identifies such Data, and the disclosure and use of such Data is not otherwise limited or restricted herein, the receiving Party agrees to withhold such Data from public disclosure for a reasonable time (presumed to be 1 year unless mutually agreed otherwise or unless such information is restricted for a longer period herein) in order for patent protection to be obtained.

### 6. Copyright

In the event Data is exchanged with a notice indicating that the Data is copyrighted and there is no indication that such Data is subject to restriction under paragraphs 2 or 3 of this clause (i.e., Data is not marked with a restrictive notice as required by paragraphs 2 or 3 of this clause), such Data will be presumed to be published and the following royalty-free licenses will apply.

(a) If it is indicated on the Data that the Data existed prior to, or was produced outside of, this Agreement, the receiving Party and others acting on its behalf, may reproduce, distribute, and

prepare derivative works only for carrying out the receiving Party's responsibilities under this Agreement.

(b) If the Data does not contain the indication of (a) above, the Data will be presumed to have been first produced under this Agreement and, except as otherwise provided in paragraph 5 of this clause and in the Inventions and Patent Rights clause of this Agreement for protection of reported inventions, the receiving Party and others acting on its behalf may reproduce, distribute, and prepare derivative works for any purpose.

#### 7. Data Subject to Export Control

Technical data, whether or not specifically identified or marked, that is subject to the export laws and regulations of the United States and that is provided to Partner under this Agreement will be treated as such, and will not be further provided to any foreign persons or transmitted outside the United States without proper U.S. Government authorization, where required.

#### 8. Background Data

(a) In the event Partner furnishes NASA with Data developed at private expense (or in the case of state or local government, Data developed at government expense) that existed prior to, or was produced outside of, this Agreement, and such Data embody Proprietary Data, and such Data is so identified with a suitable restrictive notice, NASA will use reasonable efforts to maintain the Data in confidence and such Data will be disclosed and used by NASA and any Related Entity of NASA (under suitable protective conditions) only for carrying out NASA responsibilities under this Agreement. Upon completion of activities under this Agreement, such Data will be disposed of as requested by Partner.

(b) At the time of execution of this Agreement, the Parties agree that the following Background Data embodies Proprietary Data that will be provided to NASA: "Not Applicable"

#### 9. Handling of Data

(a) In the performance of this Agreement, Partner and any Related Entity of Partner may have access to, be furnished with, or use the following categories of Data:

(i) Proprietary Data of third parties that the U.S. Government has agreed to handle under protective arrangements; and/or

(ii) U.S. Government Data, the use and dissemination of which, the U.S. Government intends to control.

(b) Data provided by NASA to Partner under the Agreement

(i) At the time of execution of this Agreement, the Parties agree that the following Proprietary Data of third parties will be provided to the Partner with the express understanding that Partner will use and protect such DATA in accordance with this clause:

"Not Applicable"

(ii) At the time of execution of this Agreement, the Parties agree that the following U.S. Government Data will be provided to Partner with the express understanding that Partner will use and protect such U.S. Government Data in accordance with this clause:

"Not Applicable"

(iii) At the time of execution of this Agreement, the Parties agree that the following software and related Data will be provided to Partner under a separate Software Usage Agreement with the

express understanding that Partner will use and protect such related Data in accordance with this clause. Unless retention of such Data is otherwise authorized under the Software Usage Agreement or Partner has entered into a license, consistent with 37 C.F.R. Part 404, for software provided under this Agreement, upon completion of activities under this Agreement, such related Data will be disposed of as instructed by NASA: "Not Applicable"

(c) With respect to such Data specifically identified in this Agreement or specifically marked with a restrictive notice, Partner agrees to:

(i) Use, disclose, or reproduce such Data only to the extent necessary to perform the work required under this Agreement;

(ii) Safeguard such Data from unauthorized use and disclosure;

(iii) Allow access to such Data only to its employees and any Related Entity that require access for their performance under this Agreement;

(iv) Except as otherwise indicated in (c)(iii) above, preclude access and disclosure of such Data outside Partner's organization;

(v) Notify its employees who may require access to such Data about the obligations under this clause and ensure that such employees comply with such obligations, and notify its Related Entity that may require access to such Data about their obligations under this clause; and

(vi) Return or dispose of such Data, as NASA may direct, when the Data is no longer needed for performance under this Agreement.

#### 10. Oral and Visual Information

If information that Partner considers to be Proprietary Data is disclosed orally or visually to NASA, NASA will have no duty to limit or restrict, and will not incur any liability for, any disclosure or use of such information unless: (a) Partner orally informs NASA before initial disclosure that such information is considered to be Proprietary Data, and (b) Partner reduces such information to tangible, recorded form that is identified and marked with a suitable restrictive notice as required by paragraphs 2 and 8 above and furnishes the resulting Data to NASA within 10 days after such oral or visual disclosure.

#### 11. Classified Material

In the event that access to, acquisition of, or delivery of classified material is required under this Agreement, the Partner must provide a completed Contract Security Classification Specification (DD Form 254 or equivalent) to the NASA Point of Contact identified herein. Transmission and access to classified material shall be in accordance with NASA and U.S Federal Government statutes, regulations, and policies.

### ARTICLE 10. INTELLECTUAL PROPERTY RIGHTS - PATENT AND INVENTION RIGHTS

1. The invention and patent rights set forth herein are applicable to any employees, contractors, subcontractors, or other entities having a legal relationship with Partner that are assigned, tasked, or contracted with to perform specified Partner activities under this Agreement. Partner agrees to inform such employees, contractors, subcontractors, or other entities of the obligations under this clause and to bind them to such obligations.

2. Based on the purpose and scope of this Agreement, and the responsibilities of the Parties, NASA has made an administrative determination that the provisions of section 305(a) of the National Aeronautics and Space Act of 1958, as amended (42 U.S.C. § 2457(a)), do not apply to this Agreement. Therefore, title to inventions made (conceived or first actually reduced to practice) as a result of activities performed under this Agreement will remain with the respective inventing party(ies). No invention or patent rights are exchanged between or granted by such parties under this Agreement except that NASA and Partner agree to use reasonable efforts to identify and report to each other any invention that is believed to have been made jointly by employees of Partner and employees of NASA (including employees of such NASA contractors, subcontractors, or other entities), and to consult and agree as to the responsibilities and course of action to be taken to establish and maintain patent protection on such invention and on the terms and conditions of any license or other rights to be exchanged or granted by or between NASA and Partner.

#### ARTICLE 11. INTELLECTUAL PROPERTY RIGHTS - RIGHTS IN RAW DATA GENERATED UNDER THE AGREEMENT

##### 1. Raw Data

Raw data (i.e., unanalyzed data) generated under this Agreement will be reserved to Principal Investigators named in this Agreement (and Co-Investigators named in this Agreement, where appropriate) for scientific analysis and first publication rights for a period of 2 years beginning with receipt of the raw data and any associated data in a form suitable for analysis. NASA and Partner may also have access to, and use of, the raw data and any associated data during the agreed-upon period, but such access and use will not prejudice the first publication rights of the investigators identified in this Agreement.

##### 2. Final Results

(a) Final results of the experiments performed under this Agreement will be made available to the scientific community through publication in appropriate journals or other established channels as soon as practicable and consistent with good scientific practice. In accordance with the Publication of Results provision of the Data Rights clause of this Agreement, the Parties agree to coordinate proposed publications with each other in a manner that allows each Party a reasonable time to review and comment on proposed publications.

(b) In the event such final results are published, NASA and Partner will have a royalty free right to reproduce, distribute, and use such published work for any purposes. Partner agrees to notify the publisher of NASA's rights in the published work.

#### ARTICLE 12. USE OF NASA NAME AND NASA EMBLEMS AND RELEASE OF GENERAL INFORMATION TO THE PUBLIC

##### 1. NASA Name and Initials

Partner agrees the words "National Aeronautics and Space Administration" and the letters "NASA" will not be used in connection with a product or service in a manner reasonably

calculated to convey any impression that such product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. In addition, with the exception of release of general information in accordance with paragraph 3 below, Partner agrees that any proposed public use of the NASA name or initials (including press releases resulting from activities conducted under this Agreement and all promotional and advertising use) shall be submitted by Partner in advance to the NASA Assistant Administrator for Public Affairs or designee ("NASA Public Affairs") for review and approval. Approval by NASA Public Affairs shall be based on applicable law and policy governing the use of the NASA name and initials.

## 2. NASA Emblems

Use of NASA emblems/devices (i.e., NASA Seal, NASA Insignia, NASA logotype, NASA Program Identifiers, and the NASA Flag) are governed by 14 C.F.R. Part 1221. Partner agrees that any proposed use of such emblems/devices shall be submitted for review and approval by NASA Public Affairs in accordance with such regulations.

## 3. Release of General Information to the Public

NASA or Partner may, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired.

### ARTICLE 13. DISCLAIMER OF WARRANTY

Equipment, facilities, technical information, and services provided by NASA under this Agreement are provided "as is." NASA makes no express or implied warranty as to the condition of such equipment, facilities, technical information, or services, or as to the condition of any research or information generated under this Agreement, or as to any products made or developed under or as a result of this Agreement including as a result of the use of information generated hereunder, or as to the merchantability or fitness for a particular purpose of such research, information, or resulting product, or that the equipment, facilities, technical information, or services provided will accomplish the intended results or are safe for any purpose including the intended purpose, or that any of the above will not interfere with privately owned rights of others. Neither the government nor its contractors shall be liable for special, consequential or incidental damages attributed to such equipment, facilities, technical information, or services provided under this Agreement or such research, information, or resulting products made or developed under or as a result of this Agreement.

### ARTICLE 14. DISCLAIMER OF ENDORSEMENT

NASA does not endorse or sponsor any commercial product, service, or activity. NASA's participation in this Agreement or supply of equipment, facilities, technical information, or services under this Agreement does not constitute endorsement by NASA. Partner agrees that nothing in this Agreement will be construed to imply that NASA authorizes, supports, endorses, or sponsors any product or service of Partner resulting from activities conducted under this Agreement, regardless of the fact that such product or service may employ NASA-developed technology.

## ARTICLE 15. COMPLIANCE WITH LAWS AND REGULATIONS

The Parties shall comply with all applicable laws and regulations including, but not limited to, safety, security, export control, and environmental laws and regulations. Access by Partner to a NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines including, but not limited to, standards on badging, credentials, and facility and IT system/application access.

## ARTICLE 16. TERM OF AGREEMENT

This Agreement becomes effective upon the date of the last signature below and shall remain in effect for a period of 5 years from the date of the last signature, with possible options to follow. The options can be exercised by the request of BioServe and agreement by NASA, which agreement will not be unreasonably withheld. In considering BioServe's request for exercising the option, NASA will take into account the Agency's current and future plans for facilities and services that would be impacted by the extension, the extend of BioServe's commercial business including the amount of non federal funds invested, and other non-federal demands for the same NASA goods and/or services.

## ARTICLE 17. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Agreement by providing 90 calendar days written notice to the other Party.

## ARTICLE 18. CONTINUING OBLIGATIONS

The obligations of the Parties set forth in the provisions, "Liability and Risk of Loss," "Intellectual Property Rights," shall continue to apply after the expiration or termination of this Agreement.

## ARTICLE 19. MANAGEMENT POINTS OF CONTACTS

The following personnel are designated as the principal points of contact between the Parties in the performance of this Agreement.

### Technical Points of Contact

#### NASA

Mark Uhran

Assistant Associate Administrator, International Space Station Director

Mail Suite: 7P39

300 E Street SW

Washington, DC 20546

Phone: 202-358-2233

Fax: 202.358.2848

mark.l.uhran@nasa.gov

#### BioServe Space Technologies

Louis Stodieck, PhD

University of Colorado

429 UCB, ECAE 1B02

Boulder, CO 80309-0429

Phone: 303-492-4010

Fax: 303-492-8883

Stodieck@colorado.edu

## Payload Manager Points of Contact

### NASA

William R. Jones  
Manager, Payload Office  
Mail Suite: Mail Code: OZ  
2101 NASA Parkway  
Houston, TX 77058  
Phone: 281-244-7941  
Fax: 281-244-8958  
william.r.jones@nasa.gov

## Business/Administrative Points of Contact

### NASA

Jason Crusan  
Agreement Manager  
300 E Street SW  
Washington, DC 20546  
Phone: 202-358-0635  
Fax: 202-358-3530  
jason.c.crusan@nasa.gov

Stefanie Countryman, MBA  
Business Development Manager  
University of Colorado  
429 UCB, ECAE 1B02  
Boulder, CO 80309-0429  
Phone: 303-735-5308  
Fax: 303-492-8883  
countrym@colorado.edu

## ARTICLE 20. DISPUTE RESOLUTION

Except as otherwise provided in the article of this Agreement entitled "Priority of Use," for those activities governed by 37 C.F.R. Part 404 under the article of this Agreement entitled "Intellectual Property Rights – Invention and Patent Rights," and those situations where a pre-existing statutory or regulatory system exists (e.g. under the Freedom of Information Act, 5 U.S.C. § 552), all disputes concerning questions of fact or law arising under this Agreement shall be referred by the claimant in writing to the appropriate person identified as the "Management Points of Contact (POCs) - Technical Points of Contact. The persons identified as the "Technical Point of Contact" for NASA and the Partner will consult and attempt to resolve all issues arising from the implementation of this Agreement. If they are unable to come to agreement on any issue, the dispute will be referred to the supervisors of the POCs, or their designated representatives, for joint resolution. If the Parties remain unable to resolve the dispute, then the NASA Associate Administrator for Space Operations or that person's designee will issue a written decision which shall be a final Agency decision for all purposes including judicial review. Nothing in this section limits or prevents either Party from pursuing any other right or remedy available by law after exhaustion of administrative remedies.

## ARTICLE 21. MODIFICATIONS

Any modification to this Agreement shall be executed, in writing, and signed by an authorized representative of NASA and the Partner. Any modification that creates an additional

commitment of NASA resources must be signed by the original NASA signatory authority, or successor, or a higher level NASA official possessing original or delegated authority to make such a commitment.

#### ARTICLE 22. ASSIGNMENT

Neither this Agreement nor any interest arising under it will be assigned by the Partner or NASA without the express written consent of the officials executing this Agreement.

#### ARTICLE 23. APPLICABLE LAW

U.S. Federal law governs this Agreement for all purposes, including, but not limited to, determining the validity of the Agreement, the meaning of its provisions, and the rights, obligations and remedies of the Parties.

#### ARTICLE 24. INDEPENDENT RELATIONSHIP

This Agreement is not intended to constitute, create, give effect or otherwise recognize a joint venture, partnership, or formal business organization, or agency agreement of any kind, and the rights and obligations of the Parties shall be only those expressly set forth herein.

#### ARTICLE 25. LOAN OF GOVERNMENT PROPERTY

1. In order to further activities set forth in this Agreement, the Parties acknowledge that NASA may loan Government property to Partner:

Any property loaned under this agreement will be included as part of the individual payload plans under the following conditions.

2. The property listed (hereinafter referred to as the "PROPERTY") is not being provided to Partner as a substitute for the purchasing of the same type of property by Partner under any contract or grant that Partner has, or may have, with a third party. Furthermore, such PROPERTY is not excess to NASA's requirements and its use is anticipated upon its return to NASA.

3. In support of this loan the Partner shall:

- (a) Install, operate, and maintain the PROPERTY at Partner's expense;
- (b) Furnish all utilities (e.g., water, electricity) and operating materials required for the operation of the PROPERTY;
- (c) Bear all costs associated with the use and enjoyment of the PROPERTY under the terms of this Agreement, including but not limited to such costs as packing, crating, shipping, installing, maintaining, licensing, and operating the PROPERTY;
- (d) Transport the PROPERTY in accordance with good commercial practice;
- (e) Acknowledge that the privilege of using and enjoying the said PROPERTY exists solely by virtue of this Agreement with NASA, the owner of said PROPERTY, and not as of right;
- (f) Identify, mark, and record all of the PROPERTY promptly upon receipt, and maintain such identity so long as it remains in the custody, possession, or control of Partner.



- (g) Maintain suitable records for each item of PROPERTY. As a minimum, such records shall show description, identification number, unit cost, quantity, dates of receipt, condition upon receipt, and location. Partner shall perform an inventory of the PROPERTY one (1) year from the effective date of this Agreement, and every year thereafter, if the Agreement is still in effect, and send such inventory report to NASA. The report shall include a statement validating any requirement to continue the loan. Further, Partner shall provide to NASA upon reasonable request, records sufficient to disclose the date of inspections, the deficiencies discovered as a result of inspections, and the maintenance actions performed. This annual report shall be submitted to the NASA Payload Manager listed in Article 20 Management Points of Contacts.
- (h) Assume responsibility for loss or damage to the PROPERTY, reasonable wear and tear excepted and, with the same limitation for wear and tear, agrees to return the PROPERTY to NASA in as good condition as when received. It is understood that Partner is financially responsible for any damage to the PROPERTY while it is in the care, custody, and control of Partner, its employees, contractors, subcontractors, agents, or principal investigators.
- (i) Report any loss, damage, or destruction of PROPERTY to the NASA POC identified above within ten (10) working days from the date of the discovery thereof.

#### ARTICLE 26. SIGNATORY AUTHORITY

The signatories to this Agreement covenant and warrant that they have authority to execute this Agreement. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND SPACE  
ADMINISTRATION

BY: William H. Gerstenmaier  
William H. Gerstenmaier  
Associate Administrator  
for Space Operations  
Mail Suite: 7K39  
300 E Street SW  
Washington, DC 20546

DATE: 9 MAY 2008

BIOSERVE SPACE  
TECHNOLOGIES

BY: Randall Draper  
Randall Draper, PhD.  
Director  
Office of Contracts and Grants  
University of Colorado  
Boulder, CO 80309

DATE: 5/7/08

BIOSERVE SPACE  
TECHNOLOGIES

BY: Louis Stodieck  
Louis Stodieck, PhD  
Director  
BioServe Space Technologies  
429 UCB, ECAE 1B02  
Boulder, CO 80309-0429

DATE: 5/8/08