NONREIMBURSABLE SPACE ACT AGREEMENT BETWEEN ASTROGENETIX, INC. AND THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, 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 (51 U.S.C. § 20113), 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 Astrogenetix, Inc., located at 401 Congress Ave., Suite 1650, Austin, TX 78701 (hereinafter referred to as "Partner"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE

NASA is operating a share of the U.S. accommodations of the International Space Station (ISS) as a national laboratory in accordance with Section 507 the NASA Authorization Act of 2005 (51 U.S.C. § 70905). Section 507 of said Act designated the U.S. segment of the ISS a national laboratory and instructed NASA to "seek to increase the utilization of the ISS by other Federal entities and the private sector through partnerships, cost-sharing agreements, and other arrangements that would supplement NASA funding of the ISS." (51 U.S.C. §§ 70905(b) and (c)(1).)

To fulfill this mandate NASA released an announcement for proposals 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." Astrogenetix responded to that announcement with a proposal to utilize the ISS for space-based on-orbit development of a salmonella vaccine. The proposal included a pre-assembly complete phase and a post-assembly complete phase.

During the pre-assembly complete phase, conducted under a separate Space Act Agreement, NASA and Astrogenetix conducted multiple controlled flight studies to document virulence levels and finalize reproducible pre-flight, on-orbit, and post flight operations. Based on the success of the pre-assembly complete phase, Astrogenetix has produced batches of salmonella microorganisms grown and preserved in space to use in partnership with vaccine and pharmaceutical companies for use in vaccine development.

NASA agrees that Astrogenetix demonstrated "early proof-of-concept" research during the pre-assembly complete period through its work on a vaccine for salmonella and Methicillin-resistant Staphylococcus aureus (MRSA), and has demonstrated the value a stable microgravity-based environment's value in the development of new biomedical

therapeutics. Accordingly, NASA has agreed to this follow-on Space Act Agreement to continue the work in the post-assembly complete phase.

ARTICLE 3. RESPONSIBILITIES

NASA will use reasonable efforts to:

1. Provide space transportation services to or from the ISS for post-assembly complete phase activities on launch vehicles NASA has access to.

a. NASA will provide said space transportation services at no cost to Astrogenetix.

b. Such space transportation services will be compatible with research requirements defined by Astrogenetix.

c. NASA understands that the post-assembly complete phase research activities require repeated access to space, and will use reasonable efforts to make flight opportunities available in FY 2012.

d. Over FY 2013 to 2016, NASA agrees to a minimum commitment of four (4) flight opportunities in FY 2013 with an increase of two (2) additional opportunities per year for each year thereafter as shown below. (Each flight opportunity is defined as a 10 kg payload. Therefore, a 30 kg payload experiment would count as 3 flight opportunities.)

i. FY 2012 – reasonable efforts
ii. FY 2013 – 4 opportunities
iii. FY 2014 – 6 opportunities
iv. FY 2015 – 8 opportunities
v. FY 2016 – 10 opportunities

e. If for some reason NASA is unable to provide any of the twenty-eight (28) specified opportunities identified for FY 2013 through 2016, the unused opportunity(ies) shall be credited to be utilized in any subsequent fiscal year by Astrogenetix at its sole election, even if that means that the flight opportunities will occur after FY 2016.

f. If for some reason, Astrogenetix is unable to use any of the twenty-eight (28) specified opportunities identified for FY 2013 through 2016, the unused opportunity(ies) shall not be carried forward to a future opportunity.

2. Provide Astrogenetix all necessary on-orbit ISS resources which, in the determination of Astrogenetix, are required to allow Astrogenetix to effectively conduct research and development on the ISS.

3. Provide Astrogenetix access to ground facilities, which NASA owns or has rights to, that are used for pre-launch preparation of samples which, in the determination of Astrogenetix, are required to allow Astrogenetix to effectively prepare for research and development on the ISS. This includes the same access to the commercial resupply service ground facilities which NASA has negotiated for all payloads processing.

4. Negotiate with Astrogenetix on terms of access to NASA's inventory of cold stowage systems.

5. NASA shall notify Astrogenetix no later than sixty (60) days before launch that Astrogenetix does have a flight opportunity.

6. Work with Astrogenetix to identify transportation services by communicating with possible vendors that NASA has provided Astrogenetix with a commitment of on-orbit space allocations. Such communications to be performed at the request of Astrogenetix.

Astrogenetix, Inc. will use reasonable efforts to:

1. Ensure the majority of the research and development conducted by Astrogenetix has commercial support or applications.

2. Maximize the utilization of all flight opportunities made available to Astrogenetix for research and development of full scale production during the post-assembly complete phase.

3. Conduct all flight research and development in accordance with NASA payload requirements.

4. Follow through on the results of the research by performing clinical trials or other testing as required by the FDA to move from the research realm to application.

5. Provide NASA with Operational Reports on all payloads flown under this agreement.

6. Provide NASA with Findings Reports on the findings from the research and development conducted with payloads flown under this agreement.

ARTICLE 4. SCHEDULE AND MILESTONES

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

Description of research objectives for each manifested payload	Increment minus 4 months
Operational reports*	Flight completion plus 30 days
Findings reports**	Flight completion plus 1 year

Notification of commercial development, patents, and products	As accomplished
Filing of Investigational New Drug (IND) paperwork with the Food and Drug Administration (FDA)	FY 2012
NASA provided flight opportunities based on successful IND filing	FY 2013/14

ARTICLE 5. FINANCIAL OBLIGATIONS

There will be no transfer of funds between the Parties under this Agreement and each Party will fund its own participation. 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, (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, Partner 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 as between two commercial users, NASA, in its sole discretion, shall determine the priority as between the two users subject to the review of an independent review committee chartered by NASA with members comprised exclusively from outside NASA. 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 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, 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 Vehicle 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 Vehicles 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 to perform activities under this Agreement.

(b) "Data," means recorded information, regardless of form, the media on which it is recorded, or the method of recording.

(c) "Proprietary Data," means Data embodying trade secrets developed at private expense or commercial or financial information that is privileged or confidential, and that includes a restrictive notice, unless the Data is:
(i) known or available from other sources without restriction;
(ii) known, possessed, or developed independently, and without reference to the Proprietary Data;
(iii) made available by the owners to others without restriction; or
(iv) required by law or court order to be disclosed.

(d) Data exchanged under this Agreement is exchanged without restriction except as otherwise provided herein.

(e) Notwithstanding any restrictions provided in this clause, the Parties are not restricted in the use, disclosure, or reproduction of Data provided under this Agreement that meets one of the exceptions in (c) above. If a Party believes that any exceptions apply, it shall notify the other Party before any unrestricted use, disclosure, or reproduction of the Data.

(f) The Parties will not exchange preexisting Proprietary Data under this Agreement unless authorized herein or in writing by the owner.

(g) If the Parties exchange Data having a notice that the Receiving Party deems is ambiguous or unauthorized, the Receiving Party shall tell the Providing Party. If the notice indicates a restriction, the Receiving Party shall protect the Data under this clause unless otherwise directed in writing by the Providing Party.

(h) The Data rights herein apply to the employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this clause.

(i) Disclaimer of Liability: NASA is not restricted in, or liable for, the use, disclosure, or reproduction of Data without a restrictive notice under paragraphs 1(c) or 2 of this clause or for Data Partner gives, or is required to give, the U.S. Government without restriction.

(j) Partner may use the following or a similar restrictive notice under paragraphs 1(c), 2 and 8 of this clause. Partner should also mark each page containing Proprietary Data with the following or a similar legend: "Proprietary Data – use and disclose only under the notice on title or cover page."

Proprietary Data Notice
The data herein include Proprietary Data and are restricted under the Data Rights provisions of Space Act Agreement SAA0-SOMD-11096.

2. Data First Produced by Partner Under this Agreement

If Data first produced by Partner or its Related Entities under this Agreement is given to NASA, and the Data is Proprietary Data, and it includes a restrictive notice, NASA will use reasonable efforts to protect it. The Data will be disclosed and used (under suitable protective conditions) only for U.S. Government purposes.

3. Data First Produced by NASA Under this Agreement

If Partner requests that Data first produced by NASA or its Related Entities under this Agreement be protected, and NASA determines it would be Proprietary Data if obtained from Partner, NASA will mark it with a restrictive notice and use reasonable efforts to protect it for 1 year after its development. During this restricted period the Data may be disclosed and used (under suitable protective conditions) for U.S. Government purposes only, and thereafter for any purpose. Partner must not disclose the Data without NASA's written approval during the restricted period. The restrictions placed on NASA do not apply to Data disclosing a NASA-owned invention for which patent protection is being considered.

4. Publication of Results

The National Aeronautics and Space Act (51 U.S.C. § 20112) requires NASA to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof. As such, NASA may publish unclassified and non-Proprietary Data resulting from work performed under this Agreement. The Parties will coordinate publication of results allowing a reasonable time to review and comment.

5. Data Disclosing an Invention

If the Parties exchange Data disclosing an invention for which patent protection is being considered, and the furnishing Party identifies the Data as such when providing it to the Receiving Party, the Receiving Party shall withhold it from public disclosure for a reasonable time (one (1) year unless otherwise agreed or the Data is restricted for a longer period herein).

6. Copyright

Data exchanged with a copyright notice and no indication of restriction under paragraphs 1(c), 2 or 3 of this clause (i.e., Data has no restrictive notice) is presumed to be published. The following royalty-free licenses apply:

(a) If indicated on the Data that it was produced outside of this Agreement, it may be reproduced, distributed, and used to prepare derivative works only for carrying out the Receiving Party's responsibilities under this Agreement.

(b) Data without the indication of (a) is presumed to be first produced under this Agreement. 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 Data may be reproduced, distributed, and used to prepare derivative works for any purpose.

7. Data Subject to Export Control

Whether or not marked, technical data subject to the export laws and regulations of the United States provided to Partner under this Agreement must not be given to foreign persons or transmitted outside the United States without proper U.S. Government authorization.

8. Handling of Background, Third Party Proprietary, and Controlled Government Data

(a) NASA or Partner (as Disclosing Party) may provide the other Party or its Related Entities (as Receiving Party):
(i) Proprietary Data developed at Disclosing Party's expense outside of this Agreement (referred to as Background Data);
(ii) Proprietary Data of third parties that Disclosing Party has agreed to protect or is required to protect under the Trade Secrets Act (18 U.S.C. § 1905) (referred to as Third Party Proprietary Data); and
(iii) U.S. Government Data, including software and related Data, Disclosing Party intends to control (referred to as Controlled Government Data).
(b) All Background, Third Party Proprietary and Controlled Government Data provided by Disclosing Party to Receiving Party shall be marked by Disclosing Party with a restrictive notice and protected by Receiving Party in accordance with this clause.
(c) Disclosing Party provides the following Data to Receiving Party. The lists below may not be comprehensive, are subject to change, and do not supersede any restrictive notice on the Data.
(i) Background Data: None
(ii) Third Party Proprietary Data: None
(iii) Controlled Government Data: None
(iv) NASA software and related Data will be provided to Partner under a separate Software Usage Agreement (SUA). Partner shall use and protect the related Data in accordance with this clause. Unless the SUA authorizes retention, or Partner enters into a license under 37 C.F.R. Part 404, the related Data shall be disposed of as NASA directs: None
(d) For Data with a restrictive notice and Data identified in this Agreement, Receiving Party shall:
(i) Use, disclose, or reproduce the Data only as necessary under this Agreement;
(ii) Safeguard the Data from unauthorized use and disclosure;
(iii) Allow access to the Data only to its employees and any Related Entity requiring access under this Agreement;
(iv) Except as otherwise indicated in (d)(iii), preclude disclosure outside Receiving Party's organization;
(v) Notify its employees with access about their obligations under this clause and ensure their compliance, and notify any Related Entity with access about their obligations under this clause; and

(vi) Dispose of the Data as Disclosing Party directs.

9. Oral and visual information

If Partner discloses Proprietary Data orally or visually, NASA will have no duty to restrict, or liability for disclosure or use, unless Partner:

(a) Orally informs NASA before initial disclosure that the Data is Proprietary Data, and

(b) Reduces the Data to tangible form with a restrictive notice as required by paragraphs 1(c), 2 and 8 of this clause, and gives it to NASA within ten (10) calendar days after disclosure.

ARTICLE 10. INTELLECTUAL PROPERTY RIGHTS - RIGHTS IN RAW DATA GENERATED UNDER THE AGREEMENT

1. Raw Data

Raw data (i.e., unanalyzed data) and related Data produced under this Agreement is reserved to Principal Investigators (and Co-Investigators if any) named in this Agreement for scientific analysis and first publication rights for 12 months beginning with receipt of the Data in a form suitable for analysis. Subject to the provisions of the Intellectual Property Rights - Data Rights Article of this Agreement, NASA and Partner may also use the Data during the restricted period. This use will not prejudice the investigators' first publication rights.

2. Final Results

(a) Final results shall 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. Under the Publication of Results provision of the Intellectual Property Rights - Data Rights clause of this Agreement, the Parties shall coordinate proposed publications allowing a reasonable time for review and comment.

(b) NASA and Partner have a royalty-free right to reproduce, distribute, and use published final results for any purposes. Partner must notify publisher of NASA's rights.

ARTICLE 11. INTELLECTUAL PROPERTY RIGHTS - INVENTION AND PATENT RIGHTS

1. General

(a) NASA has determined that 51 U.S.C. § 20135(b) does not apply to this Agreement. Therefore, title to inventions made (conceived or first actually reduced to

practice) under this Agreement remain with the respective inventing party(ies). No invention or patent rights are exchanged or granted under this Agreement, except as provided herein.

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

2. NASA Inventions

NASA will use reasonable efforts to report inventions made under this Agreement by its employees. Upon request, NASA will use reasonable efforts to grant Partner, under 37 C.F.R. Part 404, a negotiated license to any NASA invention made under this Agreement. This license is subject to paragraph 5(a) of this clause.

3. NASA Related Entity Inventions

NASA will use reasonable efforts to report inventions made under this Agreement by its Related Entity employees, or jointly between NASA and Related Entity employees, where NASA has the right to acquire title. Upon request, NASA will use reasonable efforts to grant Partner, under 37 C.F.R. Part 404, a negotiated license to any of these inventions where NASA has acquired title. This license is subject to paragraph 5(b) of this clause.

4. Joint Inventions with Partner

The Parties will use reasonable efforts to report, and cooperate in obtaining patent protection on, inventions made jointly between NASA employees, Partner employees, and employees of either Party's Related Entities. Upon timely request, NASA may, at its sole discretion and subject to paragraph 5 of this clause:

(a) refrain from exercising its undivided interest inconsistently with Partner's commercial business; or

(b) use reasonable efforts to grant Partner, under 37 C.F.R. Part 404, an exclusive or partially exclusive negotiated license.

5. Rights to be Reserved in Partner's License

Any license granted Partner under paragraphs 2, 3, or 4 of this clause is subject to the following:

(a) For inventions made solely or jointly by NASA employees, NASA reserves the irrevocable, royalty-free right of the U.S. Government to practice the invention or have it practiced on behalf of the United States or on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement with the United States.

(b) For inventions made solely or jointly by employees of a NASA Related Entity, NASA reserves the rights in (a) above, and a revocable, nonexclusive, royalty-free license retained by the Related Entity under 14 C.F.R. § 1245.108 or 37 C.F.R. § 401.14 (e).

6. Protection of Reported Inventions

For inventions reported under this clause, the Receiving Party shall withhold all invention reports or disclosures from public access for a reasonable time (1 year unless otherwise agreed or unless restricted longer herein) to facilitate establishment of patent rights.

7. Patent Filing Responsibilities and Costs

(a) The invention and patent rights herein apply to any patent application or patents covering an invention made under this Agreement. Each Party is responsible for its own costs of obtaining and maintaining patents covering sole inventions of its employees. The Parties may agree otherwise, upon the reporting of any invention (sole or joint) or in any license granted.

(b) Partner shall include the following in patent applications for an invention made jointly between NASA employees, its Related Entity employees and Partner employees:

The invention described herein may be manufactured and used by or for the U.S. Government for U.S. Government purposes without the payment of royalties thereon or therefore.

ARTICLE 12. USE OF NASA NAME AND EMBLEMS

1. NASA Name and Initials

Partner shall not use "National Aeronautics and Space Administration" or "NASA" in a way that creates the impression that a product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. Except for releases under the "Release of General Information to the Public and Media" clause, Partner must submit any proposed public use of the NASA name or initials (including press releases and all promotional and advertising use) to the NASA Assistant Administrator for the Office of Communication or designee ("NASA Communications") for review and approval. Approval by NASA Communications shall be based on applicable law and policy governing the use of the NASA name and initials.

2. NASA Emblems

Use of NASA emblems (i.e., NASA Seal, NASA Insignia, NASA logotype, NASA Program Identifiers, and the NASA Flag) is governed by 14 C.F.R. Part 1221. Partner

must submit any proposed use of the emblems to NASA Communications for review and approval.

ARTICLE 13. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or Partner may, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired. Further, any and all public releases of information required by regulation or order of the U.S. Securities and Exchange Commission are beyond the scope of the Article and do not require NASA review or concurrence. NASA must refer to "Astrogenetix" by name in discussing with the general public or the Congress any experiments which Astrogenetix conducts pursuant to this agreement. In any instance when NASA fails to do so, it must agree to correct this omission in writing and submitted to the public for clarification within five (5) business days of becoming aware of this error.

ARTICLE 14. DISCLAIMER OF WARRANTY

(a) 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.

(b) Equipment, facilities, technical information, and services provided by Partner under this Agreement are provided "as is." Partner 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 Partner nor its Related Entities or 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 15. DISCLAIMER OF ENDORSEMENT

NASA does not endorse or sponsor any commercial product, service, or activity. NASA's participation in this Agreement or provision of goods, services, facilities or equipment 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 16. COMPLIANCE WITH LAWS AND REGULATIONS

(a) The Parties shall comply with all applicable laws and regulations including, but not limited to, safety; security; export control; environmental; and suspension and debarment laws and regulations. Access by a Partner to 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.

(b)With respect to any export control requirements:

(i) The Parties will comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 through 130, and the Export Administration Regulations (EAR), 15 C.F.R. Parts 730 through 799, in performing work under this Agreement or any Annex to this Agreement. In the absence of available license exemptions or exceptions, the Partner shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data and software, or for the provision of technical assistance.

(ii) The Partner shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of work under this Agreement or any Annex under this Agreement, including instances where the work is to be performed on-site at NASA and where the foreign person will have access to export-controlled technical data or software.

(iii) The Partner will be responsible for all regulatory record-keeping requirements associated with the use of licenses and license exemptions or exceptions.

(iv) The Partner will be responsible for ensuring that the provisions of this Article apply to its Related Entities.

(c) With respect to suspension and debarment requirements:

(i) The Partner hereby certifies, to the best of its knowledge and belief, that it has complied, and shall comply, with 2 C.F.R. Part 180, Subpart C, as supplemented by 2 C.F.R. Part 1880, Subpart C.

(ii) The Partner shall include language and requirements equivalent to those set forth in subparagraph (c)(i), above, in any lower-tier covered transaction entered into under this Agreement.

ARTICLE 17. 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 Astrogenetix and agreement by NASA, which agreement will not be unreasonably withheld. In considering Astrogenetix'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 extent of Astrogenetix'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 18. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Agreement by providing thirty (30) calendar days written notice to the other Party.

ARTICLE 19. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this Agreement, e.g., "Liability and Risk of Loss," "Intellectual Property Rights," and related clauses shall survive such expiration or termination of this Agreement.

ARTICLE 20. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Agreement.

Management Points of Contact

NASA National Aeronautics and Space Administration
Marybeth A. Edeen
Manager, ISS National Lab
Mail Stop: OZ
2101 Nasa Parkway
Houston, TX 77058
Phone: (281) 483-9122
Fax: (281) 244-8292
marybeth.a.edeen@nasa.gov

Astrogenetix, Inc.
John Porter
Chief Executive Officer
401 Congress Ave.
Suite 1650
Austin, TX 78701
Phone: (512) 485-9523
jporter@astrotechcorp.com

Principle Investigator/Technical Point of Contact

NASA National Aeronautics and Space Administration
Marybeth A. Edeen
Manager, ISS National Lab
Mail Stop: OZ
2101 Nasa Parkway
Houston, TX 77058
Phone: (281) 483-9122
Fax: (281) 244-8292
marybeth.a.edeen@nasa.gov

Astrogenetix, Inc.
John Porter
Chief Executive Officer
401 Congress Ave.
Suite 1650
Austin, TX 78701
Phone: (512) 485-9523
jporter@astrotechcorp.com

ARTICLE 21. DISPUTE RESOLUTION

Except as otherwise provided in Article 6 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 Human Exploration and Operations or that person's designee will issue a written decision which shall be a final Agency decision for all purposes including judicial review. If the dispute involves hardware on a specific launch, the dispute shall be resolved with 5 working days so that the launch opportunity is not lost. Nothing in this section limits or prevents either Party from pursing any other right or remedy available by law after exhaustion or administrative remedies.

ARTICLE 22. INVESTIGATIONS OF MISHAPS AND CLOSE CALLS

In the case of a close call, mishap or mission failure, the Parties agree to provide assistance to each other in the conduct of any investigation. For all NASA mishaps or close calls, Partner agrees to comply with NPR 8621.1, "NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping".

ARTICLE 23. MODIFICATIONS

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

ARTICLE 24. 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, or successors, or higher- level officials possessing original or delegated authority to execute this Agreement.

ARTICLE 25. 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 26. INDEPENDENT RELATIONSHIP

This Agreement is not intended to constitute, create, give effect to 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 27. 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
Associate Administrator
for Human Exploration and
Operations Mission Directorate

DATE: 12/20/2011

ASTROGENETIX, INC.

BY: _____
John M. Porter
Chief Executive Officer

DATE: 12/22/2011