



2024 HUMANS IN SPACE CHALLENGE

Application Guideline

All information must be submitted by 23:59PM(EST) on 27th June 2024



HUMANS IN SPACE

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I. ABOUT 2024 HUMANS IN SPACE CHALLENGE

Opening up the third annual Humans In Space Challenge, **2024 HIS Program** aims to become a premier *Space Healthcare Platform*, investing in selective startups developing disruptive technology and researchers addressing critical space healthcare challenges both on Earth and in Space. This year, our initiative involves the deployment of researches and technologies for on-orbit experiments in space, facilitated by our extensive network of partners, including space companies offering in-space platforms and support for the implementation of experiment payloads. Through our initiative, we desire to seamlessly integrate all research discoveries and technological advancement into the HIS Platform, to foster an ecosystem where all ideas can be advanced collectively by all HIS Cohort and partners.

II. TIMELINE

Stage	Time(+ET)	Place
Call Opens	1 May 2024	Virtual
Call Closes (Application Deadline)	27 June 2024 at 11:59 PM EST	Virtual
[1st Round Winners] Announcement	Late August 2024	Virtual
Virtual Pitch Event (All 1st Round Winners)	September 2024	Virtual
[2nd Round Winners] Announcement	September 2024	Virtual
Final Pitch Event (All 2nd Round Winners)	14-18 October 2024	2024 IAC (International Astronautical Congress) in Milan, Italy*
[3rd Round Winners] Final Round Winners Announcement	October	Virtual
HIS Accelerator Program	November	To Be Announced
Post HIS Challenge		
Equity Investment Awardees (Review and discussion of investment terms and introduction to relevant partners)		
Orbital Launch Funding Awardees (Meetings and discussions with implementation /platform partners to kick-off orbital experiment preparation)		

*subject to change

III. INVESTMENT AND BENEFITS

2024 HIS Investment aims to facilitate and enable on-orbit experiment of the Awardee's research, and to circulate data and lesson-learned within the HIS ecosystem to foster greater collaboration in the Space Healthcare sector. Therefore, 2024 HIS Program operates upon a **Two Track Funding Model** to enable on-orbit experiment of the Awardee's research and to facilitate technology development. Awardees may choose between the two tracks that better suit their needs.

1. Track One (Growth Stage I) *"Nurturing Early Stage Space Ideas for Expansion of Orbital Launch Portfolio"*

- Target Applicant: Startup Only
- Investment Method: Equity Investment (SAFE Investment)
- Award Size: 50,000 USD

2. Track Two (Growth Stage II): *"Facilitating in-space experiment through Orbital Launch Funding"*

- Target Applicant: Startups and Researchers
- Investment Method: Awardees may select either a **1. Conditioned R&D Investment** or **2. Conditioned Loan Investment**. Both investments are conditioned to be used for costs associated with on-orbit experiments. All intellectual property (IP) resulting from the HIS Investment will be subject to IP revenue sharing. The specifics of the loan terms or revenue sharing % calculation methods will be announced prior to the execution of the investment.
 - **1) R&D Investment w/ IP Revenue Sharing**
 - **Description**: R&D Investment, subject to condition that such Investment be used for the limited purpose relating to on-orbit research. IP Revenue Share contract applied to funded IP.
 - **Award Size**: Up to 250,000 USD
 - **2) R&D Loan Investment w/ IP Revenue Sharing**
 - **Description**: Loan (w/out warrant) that will later mature and transform into an IP Revenue Share contract.
 - **Award Size**: Amount depends on the type and duration of the research experiment

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***Actual research experiment may differ from the initial plan outlined by the Awardees in their application in the process of designing and implementing the research. (Assuring there will be no impact to Awardee's original IP or research initiative.*

(Additional Benefits)

- **HIS Accelerator Program:** Tailored mentorships and workshops supporting orbital launch by leading space researchers, corporates, and investors
- **Networking Events:** Connection with key figures in the space industry through exclusive networking events
- **International Exposure:** Opportunity to pitch in a global conference and be featured in promotional in HIS and Partner channels
- **Alumni Network:** Robust alumni network to promote professional growth and collaboration opportunities
- **Zero Gravity Flight Opportunities:** Opportunity to validate your idea through Zero-G Flight supported by Aurelia Institute
- **Amazon Web Services (AWS) Credit:** Complimentary credits worth \$100k to access AWS services for experiment data management & analysis

IV. APPLICANT ELIGIBILITY

1. Startups

- **Startups with working prototype** (Pre-seed to Series D)
- **Registered company** (If the company is expected to be registered, it must obtain registration status by August, 2024)
- **Country Eligibility:** Humans In Space Challenge welcomes applicants from all nations. However, for Orbital Launch Funding applicants, applications are open to countries except for those [restricted by NASA ISS](#) or our research platform providers.

2. Researchers

- **Affiliation to University/Research Institute:** Applicants must be affiliated with a university or research institute

- **Graduate student or above:** Applicants must be a graduate student or above at the organization
 - This includes master's degree students, doctoral students, postdoctoral scholars, and researchers/professors of all levels
- **Country Eligibility:** Humans In Space Challenge welcomes applicants from all nations, except for those [restricted by NASA ISS](#) or our research platform providers.

V. APPLICANT REQUIREMENTS

1. Equity Investment Applicants

- Application questions must be completed through the Humans In Space website
- Slide Deck preferable including the following information:
 - Target Market (Include factors that support the growth of this market)
 - Business Model
 - Revenue Channel & Target Customers
 - Projected Financials (Include projected revenue generation timeline)

2. Orbital Launch Funding Applicants

- Application questions must be completed through the *Humans In Space* website
- Project Plan & Technology Development Document (*template provided in Appendix*)
 - Projects should have clear plans for Orbital Experiment and be able to deliver flight hardware/experiment in time for a flight in 18 months (prospectively).
- (For Startup Applicants Only) Slide Deck (Refer to Equity Investment Applicant Slide Deck content section for preferred contents)
- (For Research Applicants Only - *Optional*) Institutional Signature Page (free-format)

VI. TOPIC EXPLANATION

Humans In Space presents Two Domains of Challenge Topics:

(1) Critical Problems in Space, tackling critical health challenges/risks for extended human presence in space and **(2) Critical Problem on Earth**, to solve critical health problems on Earth

leveraging Space environment. Our topics reflect NASA Human Research Program (NASA HRP) and ISS National Laboratory (ISSNL)'s priority areas of research and innovation.

**HIS considers all topics equally important, and all proposals will be considered equally. Below are the sub topics of each categories, for more detailed definition of each topic, please refer to Appendix-2.*

(1) Critical Problem in Space

- **Human Health Risks and Countermeasures**
 - **Biological Response** (Immunology, Neurology, Musculoskeletal, Cardiovascular, Respiratory, Renal, Reproductive and Developmental System, Dermatology)
 - **Space Medicine** (Clinical Decision Support, Pharmacology and Medical System)
- **Human Performance Related Risks and Countermeasures**
 - **Environment and Food** (Extraterrestrial Habitat, Space Radiation, Food and Nutrition)
 - **Performance Bands** (EVA Injury, Team Coordination, Cooperation, Communication, Dynamic Loads Injury, Behavioral Conditions and Psychiatric Disorders, Sleep Loss)

(2) Critical Problem on Earth

- **Research**
 - **Molecule Process**
 - **Radiation Exposure**
 - **Microorganism & Microbial Systems**
 - **Disease Diagnostics & Modelling**
- **Development and Manufacturing**
 - **Crystal Growth**
 - **Tissue Engineering and Regenerative Medicine**
 - **Cell Culture**
 - **Bioinformatics**
 - **Bio Pharma Formulation and Vaccine Development**
 - **Biotechnology Testing**

VII. EVALUATION CRITERIA

1. General Criteria for All Applicants

- **Product/Solution:** Does the team address critical space healthcare challenge through research/innovation with clear value proposition?
- **Scientific Merit:** Does the team present an impactful and novel solution to the chosen problem area compared to existing research and technology?
- **Team:** Does the team clearly demonstrate subject matter and space-related expertise and supporting track record?
- **Synergy:** Does the team demonstrate need for space application and potential to create synergies within the Humans In Space ecosystem?

2. Additional Criteria For Each Funding Type

- **(Growth Stage I: Equity Investment)**
 - **Business Model Sustainability:** Is the business model sound and scalable?
- **(Growth Stage II: Orbital Launch Funding)**
 - **Experiment Readiness:** Is the proposed research/innovation feasible to be experimented in space within 18 months of preparation?
 - **Experiment Capability:** Does the team show the capability and preparedness for a successful orbital experiment?
 - **Output Impact:** Does the proposed experiment present potential to produce high value output?
 - **Space Experiment Fit / Optimal Platform:** Is the proposed experiment feasible and suitable for orbital experiment?

VIII. IP RIGHTS AND IP REVENUE SHARING POLICY

Humans In Space Invention, Patent, Commercialization, Intellectual Property and Revenue Sharing Agreement

**Please keep in mind that this is not an official legal document and may be subject to change in the future*

1. The following terms have the following meanings set forth below:

- **"HIS Cohort"**: All HIS Challenge award-winners recognized by Boryung as such.
- **"Collaboration Opportunity"**: Exclusive opportunities, provided to the HIS Cohort, to collaborate on the HIS platform, receive advisory and investments from HIS partners. Within reasonable bounds, Boryung will do its best to provide advisory and/or potential investments but such opportunities are subject to change and by no means guaranteed.
- **"Arising Intellectual Property"**: All intellectual property (including patents and applications therefor, copyrights, trade secrets or other proprietary protections) and all embodiments of such intellectual property, including software, hardware, technology, proprietary processes and other embodiments developed through the support of HIS Orbital Launch Funding.
- **"Orbital Launch Funding"**: Funding, in the form of Conditioned R&D Investment or Conditioned Loan Investment, provided to HIS Cohort to assist development of intellectual property in Low Earth Orbit conditions. The use of this funding amount is limited to expenses incurred for payload design/ implementation/ validation process/ launch cost. The revenue generated by Arising Intellectual Property developed through Orbital Launch Funding will be the subject of the revenue sharing agreement.
- **"Orbital Launch Cost"**: All direct expenses reasonably incurred in preparation for on-orbit experiments including launch of spacecraft and conducting of experiments aiming to develop intellectual property.
- **"Conditioned R&D Investment"**: Award in the form of cash funding to be used only for on-orbit related R&D of intellectual property. The revenue generated by Arising Intellectual Property developed through this Conditioned R&D Investment will be the subject of the revenue sharing agreement.
- **"Conditioned Loan Investment"**: Award in the form of a loan (w/o warrant) to be used only for on-orbit related R&D of intellectual property. The loan will mature and transform into an IP revenue sharing agreement, upon reach of a mutually agreed technology development milestone.
- **"Research"**: Any experiments and/or validation process conducted on-orbit for the development of Arising Intellectual Property.
- **"Data"**: Recorded information, regardless of form or the media on which it may be recorded, first produced in the performance of the HIS-funded research of a scientific or technical nature and biological, chemical, biochemical, mechanical, clinical test data and non-clinical studies data.

- **"Sample"**: All biological samples and specimens directly & indirectly collected from the research experiment funded by HIS.
- **"Technology"**: All inventions, methods and processes, know-how, trade secrets, propriety information, software, techniques.

2. Ownership of HIS-funded IP:

- **"Ownership of Data & Sample"**: Awardee and HIS shall jointly own all right, title, and other intellectual property rights, in and to all Data and Sample recorded and collected after the Effective Date of this Agreement (both on ground and in space).
- **"Ownership of Technology"**: Awardee retains IP ownership, but require notice to Boryung prior to licensing, commercialization, etc.

3. Usage Rights to HIS-funded IP:

- **"HIS Usage"**: HIS to be granted license to use, reproduce, distribute (within HIS Platform for HIS Cohorts to access data), prepare derivative work, display publicly, modify, etc. of the Data for the purpose of creating a 'HIS Database' which can be accessed by HIS Cohorts and partners.
- **"HIS Cohort Usage"**: HIS Cohorts to be granted 'view-only' access to the data stored in 'HIS Database'. Cohorts will not be allowed to utilize (reference, follow-up, or develop upon) without written consent from both Awardee and HIS.

4. Technology IP Revenue-Sharing Payment:

- Awardee will be required to share a pre-negotiated proportion of the Net Revenue generated in relation to the HIS-funded IP.

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***Actual research experiment may differ from the initial plan outlined by the Awardees in their application in the process of designing and implementing the research. (Assuring there will be no impact to Awardee's original IP or research initiative.*

APPENDIX**(APPENDIX-1) TOPIC DEFINITIONS**

1. Critical Problem in Space: This category covers inevitable crew health and performance related risks and countermeasures during deep space exploration.

- **Human Health Risks and Countermeasures:** Covers biological hazards imposed by the Space environment (Altered Gravity, Hostile/Closed Environment, Isolation, Distance from Earth) and Space pharmacology related needs.
- **Biological Response:** Includes researches and innovations that prevent, monitor, and mitigate the following:
 - **Immunology:** Altered immunity or immune activity heightened in space exploration occurs latent virus activation or allergic reactions
 - **Neurology:** Neuro-related syndrome and neurodegenerative disease caused by exposure to space
 - **Musculoskeletal:** Atrophy and loss of bone and muscle caused by microgravity environment
 - **Cardiovascular:** Alterations to astronaut blood volume, flow, and pressure distribution impacting the Cardiovascular system, amongst other body functions
 - **Respiratory:** Hypoxia and dysfunctioning of respiratory system due to radiation and celestial dust exposure
 - **Renal:** Renal Stone formation due to bone atrophy caused by the increase in calcium circulation due to microgravity
 - **Reproductive and Developmental System:** Differences in health response based on gender – highly relevant to epigenetic studies
 - **Dermatology:** Skin problems caused by microorganisms, radiation, celestial dust and other hazardous factors of spaceflight
- **Space Medicine:** Includes evidence (data) based approaches that supports the response to medical conditions such as the following:
 - **Clinical Decision Support:** Providing assistive tools in response to medical conditions during space exploration

- **Pharmacology and Medication System:** Identifying priority medical consumables and advancing management of medications in space
- **Human Performance Related Risks and Countermeasures:** Covers advancements that supports performance and life quality of astronauts during deep space exploration
- **Environment and Food:** Includes novel measures that supports astronaut's needs despite the lack of resupply missions such as the following:
 - **Extraterrestrial Habitat:** Establishing bio regenerative closed loop habitat system and assessing environment safety, and integrating crew needs in habitat design
 - **Space Radiation:** Predicting, monitoring, and protecting astronaut and habitat system from radiation exposure
 - **Food and Nutrition:** Enabling food production and managing nutrition level of astronauts
- **Performance Bands:** Guidelines and solutions that enhance crew activity and performance quality such as the following:
 - **EVA Injury:** Developing EVA suit and subsystems that is better oriented to human health and performance
 - **Team Coordination, Cooperation, Communication:** Advancing understanding of level of training, team composition, and level of psychological adaptation needed to reduce deep space exploration performance errors
 - **Dynamic Loads Injury:** Understanding injury tolerance during repetitive acceleration and deceleration of spacecraft and developing countermeasures
 - **Behavioral Conditions and Psychiatric Disorders:** Responding to decrements in cognitive and behavioral functioning due to prolonged solution and confinement
 - **Sleep Loss:** Identifying and enhancing mission conditions that interfere with responding to sleep and circadian alignment

2. Critical Problem on Earth: Critical health problems on Earth needing solutions beyond gravity

- **Research**
 - **Molecule Process:** Studying the structures of proteins and other large molecules that enable better structured crystals which enhances understanding of molecule functions

- **Radiation Exposure:** Studying the impact of radiation on cells
- **Microorganism & Microbial Systems:** Changes in virulence of the Microorganism and Microbiome in Microgravity and effect on human health on Earth
- **Disease Diagnostics & Modelling:** Studying the response of human and model organisms' physical changes during spaceflight and testing therapeutics in accelerated aging model
- **Development and Manufacturing**
 - **Crystal Growth:** Manufacturing high-quality crystals for drug development, optics, and more
 - **Tissue Engineering and Regenerative Medicine:** Utilizing the unique 3D structure cells form to develop tissue chip culture and to model drugs, improve drug development analysis, and encourage organ growth for wound healing
 - **Cell Culture:** Enabling near-real-time data about cell behavior in microgravity applicable for regenerative therapies, stem cells and others.
 - **Bioinformatics:** Analyzing & Monitoring the molecule, cell and genetic data to understand the respond in the space condition
 - **Bio Pharma Formulation and Vaccine Development:** Developing drugs and verifying the efficacy by preventing the effects of sedimentation and convection on Earth
 - **Biotechnology Testing:** Validating the durability and function of biotechnology in microgravity environment

(APPENDIX-2) APPLICATION QUESTIONS**[General Questions – For All Applicants]****1. General Information (Short Answer)**

a. Please select the type of your team/institution

b. Name, Phone number, Email Address, Company / Institute Name, Country, Website

c. (For Researchers Only)

- What is your current research stage? (What Technology Readiness Level, TRL is your research?)

d. (For Startups Only)

- Do you have a working prototype?
- How much revenue have you generated thus far? (in USD).
- What is your latest funding stage? (Pre-seed, Seed, Series A/B/C/D, etc.)
- Is your company legally registered? If not, do you plan to legally register your company by August, 2024?
- **Business Model Sustainability (Pitch Deck Attachment)** – We highly encourage you to include the followings
 - **Market** *(Include factors that support the growth of this market)*
 - **Revenue Channel & Target Customers**
 - **Financials** *(Include projected revenue generation timeline)*
 - **Business Model** *(Make sure to integrate how Space is included in your business)*

2. Product / Solution (Paragraph Answer)

a. Definition of Problem

- What Space Healthcare Challenge does your idea address? (In-Space/On-Earth choice)

- What In-Space/On-Earth Challenges will you be addressing in the 2024 HIS Challenge? (In-Space/On-Earth only choices, Can Select Multiple Items)
- Please elaborate further on the key challenge your team is trying to solve in relation to the Challenge/s selected in the previous question.

b. Significance

- (For In Space Topic) How does your research/technology address the selected challenges in Humans Space Exploration? Please provide evidence to support your claim.
- (For On Earth Topic) How does your research/technology address the selected health challenges on Earth that were not previously solved? Please provide evidence to support your claim.

3. Scientific Merit (Paragraph Answer)**a. Impact**

- How does your research or technology bring advancement to your target field? (in terms of Quality and/or Cost)

b. Novelty

- How is your approach different/unique from existing researches or innovations in the context of space healthcare? Please provide evidence to support your claim.

4. Team (Paragraph Answer)**a. Alignment**

- What is your team/company's overall vision, particularly in space?

b. Subject Matter Expertise

- Briefly summarize your team members' (including yourself) professional history, focus of work and how it contributes to the project you plan to accomplish. For Orbital Launch Fund Applicants, please include space experiment relevant track record and expertise.

c. Track Record

- Please describe any notable traction, collaboration, award, funding attained thus far.

5. HIS Synergy (Paragraph Answer)**a. Funding Synergy**

- Please describe in detail why an orbital experiment is important for your research/business. Please include key objectives to be achieved.

b. HIS Platform Synergy

- How will you contribute to the advancement of HIS Space Healthcare Ecosystem? Please be detailed in how you intend to achieve the potential synergy areas.
- Potential Synergy Areas:
 - Joint research/technology development with HIS Cohort (specific topic areas)
 - Introducing new knowledge or innovation untapped by previous HIS Cohort

[Additional Orbital Launch Funding Questions]**1. Space Experiment Fit / Orbital Experiment Optimal Platform**

- a. Please fill out and submit the Orbital Launch Funding Attachment File (upload in single word file)**
- b. If available, please include a hardware schematic or design/graphics of your experiment.**

2. Experiment Capability**a. Funding**

- Do you have additional sources of funding to support the experiment? If so, please indicate the source, estimated amount, and status (confirmed/ projected).

3. Output**a. Intellectual Property**

- Are there any new generic technological developments arising from the development along with industrial links and benefits? (spin-off developments or technology/sector transfer, etc.)

b. Technology Readiness Level (TRL) Advancement (If Applicable)

- If possible, please describe the key TRL advancement expected from a successful implementation of your in-orbit research.

c. Commercialization Plan Potential

- Do you plan to commercialize your experiment output (Data, sample, technology, etc)? If so, when and how do you plan to commercialize it? Please be detailed in your 1) target market 2) timeline 3) revenue generation method (license out, spin-off, etc.)

d. Follow-On Research Potential

- Upon successful orbital experiment, which research field would benefit the most from your experiment? Please provide evidence to support your claim.

(APPENDIX-3) ORBITAL LAUNCH FUNDING ATTACHMENT



[Click Here to Download the Form](#)

[INSTRUCTION]

: Applicants are **REQUIRED TO ANSWER ALL QUESTIONS** provided below, except for those designated as "if known" or "if applicable." Incomplete applications will be deemed ineligible. After filling out the form, please **rename the file** as **[LAST NAME, FIRST NAME_ORBITAL LAUNCH ATTACHMENT]** for RESEARCHERS and **[COMPANY NAME_ORBITAL LAUNCH ATTACHMENT]** for STARTUPS. **Upload the file in Word format in the [HIS Challenge Application Submission Hub \(TypeForm\)](#).** As you answer other questions listed in the Online Application Form, you will be led to the section where you can upload this file. You may see the complete list of Application Form Questions in HIS Application Guideline File. **Please Erase this instruction before submitting.**

[ORBITAL LAUNCH APPLICATION: PROJECT PLAN & EXPERIMENT MATURITY ASSESSMENT]

Name: PLEASE INDICATE YOUR NAME (FOR RESEARCHER) / COMPANY NAME (For Startup) USED IN TYPEFORM.

A. Basic Experiment Background Questionnaire

HUMANS IN SPACE ORBITAL LAUNCH BASIC EXPERIMENT BACKGROUND	
Science Type	(Science Experiment OR Technology Demonstration)
Overall/Expected Mass of Payload Hardware (kg)	(If known)
Size of the Payload Hardware (Height, width, depth)	(If known)
Projected Duration of Experiment (Hours/Days)	(If known)

Experiment Description (<u>This description may be used to introduce your experiment to the public upon being selected as a winner</u>)
Experiment Design Description (<u>Include the number of samples needed, time points, microscopy, etc. Indicate information on fixation methods as well, if applicable</u>)
Post Orbital Experiment Plans (<u>Indicate how the Intellectual Property (data, sample, etc) will be utilized post-flight</u>)
Software and Hardware Needs (<u>Indicate any specific hardware (including ISS facilities) and software operation system and software interface needed to execute your orbital experiment. Please include any ground control/remote Control needs as well</u>)
<ul style="list-style-type: none"> • •
Hardware Needs and Requirements in terms of power source (<u>Battery, Plug in AC Power, Watts Needed, etc</u>)
Storage Requirements (If Applicable) <u>(Indicate the storage requirement such as temperature conditioning or atmosphere conditioning (Nitrogen only, etc). Please explain in detail which phase of the experiment it is needed (Pre-launch, In-flight, Return, etc)</u>
Experiment Output Requirements (Indicate the needed output of the experiment such as recorded or real-time data downlink, video recording, hardware or sample return, etc. For Post-flight sample return needs, indicate how quickly the sample must be returned and temperature required if known)
<ul style="list-style-type: none"> • •

B. Humans In Space Orbital Launch Project Plan

: Please provide comprehensive milestone-based plans from the point of the award to the orbital launch lasting around 18 months. Include any baseline data collection (BDC) plans pre and post-flight, if applicable. Feel free to add additional rows.

HUMANS IN SPACE ORBITAL LAUNCH PROJECT PLAN				
Expected Launch Month & Year				
Milestone #	Date Start - Date Due	Milestone Description	Key Objectives & Deliverables	Key Facilities / Partners Involved (Actual/Projected) (If known)

C. Humans In Space Orbital Launch Experiment Development Plan

: Please provide a comprehensive experiment development plan from initial design to projected commercialization level. **Include even the stages that have been completed** for the evaluators to understand the current stage of your research/technology. Make sure to include any validation tests conducted and to be conducted alongside information on facility type (Drop Tower, parabolic flight, Orbital, etc). Please specify at which level of technology of maturity you aim to conduct the proposed on-orbit validation/demonstration. Feel free to add additional rows.

HUMANS IN SPACE ORBITAL LAUNCH PROJECT PLAN				
Expected Launch Month & Year				
Development Level	Date Start - Date Due	Description	Expected Output	Completion Status
Ex. Experiment			*For technology experiments, please indicate the target TRL level (Reference)	

D. List of Relevant Thesis

: Please provide a list of **your previous thesis, research, or other relevant materials** supporting the maturity of the experiment you are proposing.
Feel free to add additional rows.

HUMANS IN SPACE ORBITAL LAUNCH: PROPOSAL RELEVANT THESIS			
No.	Thesis Title	Description	Link

LEARN MORE**ABOUT BORYUNG**

Boryung is a listed healthcare investment company that has been leading the pharmaceutical business in Korea for over 60 years. Following the company's mission to become an indispensable contributor to human health, the company has expanded its business portfolio to the space healthcare industry. Boryung is proactively investing in space infrastructure and discovering new technologies in the Space Healthcare sector through its premier **Space Healthcare Initiative** called Humans In Space.

HIS CHALLENGE FAQ**I. APPLICATION CONDITIONS****Q1. Can I resubmit the same project that I submitted in '22 CIS Challenge or '23 HIS Challenge?**

A. Yes, you are allowed to resubmit your application. However, if you have been selected as an Awardee, regardless of whether you are a startup or a researcher, you can only apply for the orbital launch funding.

Q2. Are there any country restrictions to apply or win the award?

- **A.** No, Humans In Space Challenge welcomes Applicants from all nations. However, for Orbital Launch Funding applicants, applications are open to countries except for those restricted by NASA ISS or our research platform providers.

Q3. How mature should the idea be to be eligible for the Orbital Launch Funding?

- **A.** There are no limitations on idea maturity level as long as the experiment could be launched in 18 months after receiving the award (projection based). For more details on eligibility criteria, please refer to the Application Guideline.

Q4. Is there a fee or cost associated with applying?

A. No, there are no fees required to apply for our Challenge.

Q5. Can I change my answers in my application?

A. Yes, applicants can save and resume their applications at any time the form is open, and is not yet submitted. However, once the deadline has passed, no further revisions can be made. In case you would need to make revisions on the submitted application form, please notify us via email no later than 2 days after the initial submission.

II. HIS Challenge Operation**Q1. Is there a fixed number of winners to be selected in 1st, 2nd, and Final Stage of Selection?**

A. No, there are no set number of winners for each phase. The number of winners will depend on the judges' evaluation and competitiveness of the applications received.

Q2. Will the Orbital Launch Award be awarded directly to the recipient and not through other implementation or platform partners?

A. Yes, the award will be provided directly to the awardee and not through the associate implementation or platform partner.

Q3. Are there any in-person component in the HIS Challenge?

A. Yes, the Final Pitch will be held in-person. Finalists, Awardees will be required to be physically present at the event to pitch. All other HIS events are to be conducted virtually. In case of any additional in-person events, the HIS team will inform the participants in advance.

Q4. Are the Applicants required to attend all of HIS sessions?

- **A.** Yes, Applicants selected as Semi-Finalist, Finalists are mandated to attend their respective HIS session. Schedule of the session will be shared in advance. This is to ensure Applicants are evaluated fairly and are provided with equal level of support and resources through Humans In Space.

III. Partner Engagement**Q1. In what ways will the HIS partners engage in the HIS Challenge?**

- **A.** HIS Partners will be engaged as Judges and Mentors during the Program. Once selected as Finalists, you will also get the chance to interact and network with them In-Person during HIS Exclusive Sessions.

Q2. Will Orbital Launch Funding Awardees be matched with a Boryung designated platform partner?

- **A.** No, the Awardees will be able to choose which partner they would like to work with, within the list of HIS platform partners. They will collaborate with their chosen platform partner to develop their project planning for the Final Challenge work. More information about the platform partners, including flight conditions and provided services, will be provided during the HIS Challenge Session to qualified Applicants.

IV. HIS Challenge Evaluation**Q1. Who comprises the Judge Panel?**

A. Our Judge Panel consists of scientists from renowned space agencies and health institutions, university professors who have expertise in space research and investors who specifically look at space and healthcare startups. You may see the complete list of HIS Judge Panel on our official website.

Q2. What Criteria are they evaluating at Virtual Pitch Day and In-Person Final Pitch Day?

- **A.** Please refer to the Application Guide for a comprehensive explanation on the Evaluation Criteria.

(*Table VII. EVALUATION CRITERIA)

CONTACT WITH US

EMAIL	humansinspace@boryung.com
WEBSITE	humansinspaceofficial.com
YOUTUBE	www.youtube.com/@Humans_In_Space
LINKEDIN	@boryung-corp
INSTAGRAM	@humansinspace_offical
X	@humansinspace_
FACEBOOK	@humansinspace.official