CALL FOR PROJECTS

ASCLEPIOS VII

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Until November 29th 2026

ASCLEPIOS VII MISSION
Call for projects

Information and requirements

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ASCLEPIOS - THE ORGANIZATION

Asclepios is an international, student-led non-profit organization based in Lausanne, Switzerland. Recognized by EPFL, supported by eSpace – EPFL Space Center, and mentored by Swiss astronaut Claude Nicollier, Asclepios designs and conducts analogue space missions that simulate the challenges of living and operating at the Lunar South Pole. These missions take place at a high-altitude lunar analogue testing site deep in the Swiss Alps, providing a unique environment for scientific research and technological experimentation. Grounded in scientific rigor, technical innovation, and international collaboration, Asclepios missions draw on protocols and methodologies

used by the European Space Agency (ESA) and the National Aeronautics and Space Administration (NASA).

THE MISSION

Asclepios VII, launching in summer 2027, will simulate life and operations at a lunar base. Nine students have been selected as analogue astronauts and will undergo extensive training to prepare for the successful execution of the mission's scientific projects and experiments. Throughout the mission, this international crew will conduct scientific experiments, test hardware, and evaluate operational protocols within a simulated lunar base at Sasso San Gottardo, a former military fortress in the Swiss Alps. The astronauts will spend two weeks in isolation, without exposure to natural sunlight, replicating some of the challenging conditions of a lunar mission. During this period, they will only be authorised to leave the base for simulated extravehicular activities (EVAs), conducted both in designated tunnels within the fortress and outdoors after dark.

CALL FOR PROJECTS

The Asclepios VII Call for Projects aims to enable the integration of space-related projects and scientific experiments into the Asclepios VII lunar analogue mission. Key research areas include life sciences, space habitat engineering, physical sciences, Earth and materials sciences, robotics, astronomy, and lunar operations.

The Call for Projects encompasses several potential testing platforms, including extreme alpine environments, zero-gravity flights, the Mission Control Centre (MCC), and the analogue mission itself.

By providing a realistic lunar analogue environment, Asclepios VII offers a unique opportunity to investigate technologies, procedures and scientific questions relevant to future space missions.

AREAS OF RESEARCH AND TESTING

This year, we invite research groups and institutions, companies, student initiatives, independent researchers, and start-ups to submit proposals for scientific experiments, technology demonstrations, hardware testing, and other innovative projects relevant within the context of a lunar analogue mission.

For Asclepios VII, we are expanding the scope of our Call for Projects beyond the analogue mission itself to potentially include additional testing environments and operational platforms: **zero-gravity flights, Extreme Environment Training (EET), and the Mission Control Centre (MCC).** Applicants are welcome to propose experiments or activities across one or more of these platforms, depending on their project's objectives and requirements.

Important note: Proposals targeting EET or zero-gravity flights will receive equal consideration during the selection process as those designed for other platforms. However, as we are currently working to establish the partnerships required to make these testing opportunities available, we cannot yet guarantee access to EET or zero-gravity flights. Nevertheless, we will make every effort to accommodate the requirements of selected projects.

Below, we outline potential research areas and provide examples of projects that could be conducted within the framework of Asclepios VII. These categories are intended as guidance rather than strict limitations. **If your project falls outside the suggested areas but contributes to space exploration or the challenges of living and operating on the Moon, we still want to hear from you!**

Examples of projects previously conducted or proposed during Asclepios missions:

- Rovers and robots controlled by analogue astronauts on EVAs
- Novel air filtering technologies
- Growing plants in regolith soil within the space habitat
- Astronaut sleep tracking
- Countermeasures for astronaut stress management
- Studies on diversity within analogue crews
- Teleoperating robots from within the space base
- Operational testing of spacesuits components
- Evaluation of the cognitive function evolution through the mission
- Testing new ultrasound technology for remote applications
- Water filtration technologies
- Astronomy observation with astronauts on EVA
- Utilization of regolith as building material for in-situ base development
- Effects of Near infrared light on the glucose levels of the crew
- VR experiences as stress management tools

In order to promote the pursuit of scientific development, Asclepios welcomes proposals from a wide variety of fields. Below you'll find a list of some other disciplines that can be tested within the Asclepios mission.

- Architecture and Design
  - Sustainability of Lunas Bases
  - Sustainable In-Situ Resource Utilisation
  - Lunar Surface Simulation
  - Agriculture
  - Air Quality
  - Radiation

- Engineering and Physical Sciences
  - Robotics and Rockets
  - Communication and Electronics
  - Material Sciences
  - Spacesuits, Base Construction and Design

- ➢ Astronomy
- ➢ Microgravity
- ➢ Earth Sciences and Resources
- ➢ Planetary Sciences

❖ Space Biology and Biomedicine

- ➢ Microbiology
- ➢ Astrobiology
- ➢ Plant Biology
- ➢ Astronauts Health Monitoring
- ➢ Life Support Systems
- ➢ Effects on the Neurosensory System and Brain
- ➢ Space Surgery
- ➢ Physical Exercise and Reconditioning in Space
- ➢ Sleep Quality and Space Nutrition
- ➢ Psychology, Learning & Human Behavior in Isolation

And many more! If you believe your project could contribute to the future of lunar operations, space exploration or life beyond Earth, we strongly encourage you to submit a proposal!

REQUIREMENTS AND HOW TO APPLY

The Call for projects official opening date is the **26th of October 2026** and it will remain open until the **29th of November 2026, at 23:59 CET.**

The selection of the projects and experiments will consist of two rounds of evaluation: Phase A and Phase B.

Phase A

In Phase A, all interested candidates must fill out the **Google form** linked in this document and submit the **Outline proposal** by **29th of November 2026, at 23:59 CET**.

To submit a proposal in Phase A, all applicants should present a coherent draft of their project, prototype or idea. While it is not mandatory to have all details worked out about the research plan at this stage, the proposal should outline the major aspects of the experiment, such as specific tests to be carried out, number of participants, equipment needed, etc.

Phase A- Ethical Requirements

As part of this year's Phase A requirements, all proposals must include documentation confirming that ethical approval has either been requested or granted by the Institutional Review Board (IRB) or equivalent ethics committee of the applicant's institution or company. This requirement aims to ensure scientific rigour and compliance with appropriate research ethics standards.

If your institution does not have an IRB or equivalent ethics committee, or if you are an independent researcher, please clearly state this in your proposal and provide a justification explaining whether and why your project requires ethical approval.

Please note: This institutional ethical approval requirement is separate from the approval process established under the Swiss Human Research Act (HRA). Approval from the relevant Swiss Cantonal Ethics Committee will only be required after Phase B, and only for projects falling within the scope of the HRA.

Additional information: If your research plan involves questionnaires, psychological assessments (e.g., the Profile of Mood States, POMS), or other evaluations, and you are unsure whether your project falls within the scope of the HRA, you may request a **Clarification of Responsibility** through the Swiss Business Administration System for Ethics Committees (BASEC) portal before submitting your Phase A proposal. Please indicate your student status, if applicable, when making your request.

A Clarification of Responsibility (formerly known as a jurisdictional inquiry) determines whether a research project falls within the scope of the HRA and therefore requires approval from a Swiss Ethics Committee. It can also provide written confirmation that a project does not require such approval.

This clarification is not a mandatory requirement for Phase A.

You will find the Clarification of Responsibility form in the BASEC portal. Detailed instructions can be found in the following link: Submission of a clarification of responsibility .

For questions regarding the BASEC portal, you may contact the Swiss Ethics by phone at +41 31 306 93 95 (Monday–Thursday) or by email at info@swissethics.ch.

For project-specific questions, including whether your research requires a Clarification of Responsibility, you may also contact the Cantonal Ethics Committee of Ticino at dss-ce@ti.ch.

Phase B

The candidates whose proposals have successfully been pre-selected and passed Phase A will be notified by email no later than 4 weeks after Phase A's deadline.

All projects that advance into Phase B, will be required to submit a full proposal, which should include a detailed research plan, proper inventory, final cost of the project and timeline estimates. All principal investigators should secure their own funding by the time Phase B has concluded. As a student-led initiative, Asclepios disposes of limited funds to assist in bringing the projects to life.

As part of the Phase B assessment, all candidates will be interviewed by the Science Team Officers regarding their project. Other requirements, details and deadlines for Phase B will be communicated by email to the Principal Investigators (PIs).

Phase B- Ethical Requirements

To successfully complete **Phase B** and be officially selected for Asclepios VII, all applicants must establish whether their projects fall within the scope of the Swiss Human Research Act (HRA) and, consequently, whether ethical approval from the relevant Swiss Cantonal Ethics Committee is required or not.

The full experiment proposal must include documentation confirming one of the following: **that ethical approval has been requested, that it has already been granted, or that the project does not require approval from a Swiss Cantonal Ethics Committee.**

To fulfil this requirement, all Principal Investigators must provide a Clarification of Responsibility issued through the BASEC portal or other supporting documentation confirming their project's ethical approval status or whether it is required.. Acceptable documentation may include official correspondence with a Swiss Cantonal Ethics Committee, confirmation that an application for ethical approval has been submitted, or proof that approval has already been granted.

The **Asclepios VII Ethics Officers** will oversee the ethical review process and support PIs throughout the necessary procedures. Please refer to the instructions and information provided in section Phase A- Ethical Requirements.

Important note: All projects that successfully pass the final Phase B evaluation and are officially selected for Asclepios VII will be assigned a dedicated Science Officer. The Science Officer will work closely with the respective PIs to develop and refine experimental procedures, ensuring that their projects can be effectively carried out by the Analogue Astronaut Crew or Mission Control Centre (MCC) personnel.

EVALUATION CRITERIA

The final selection is based on an evaluation that ensures the projects fit the most critical aspects of the mission. All proposals for the Asclepios VII mission will be assessed according to the following criteria:

❖ Coherence with Asclepios Mission Statement: The extent to which the project contributes to Asclepios' primary mission of advancing lunar operations, space exploration, and scientific progress through experimentation and testing. You can learn more about our mission at ascleppios.ch.

❖ Novelty: The degree of innovation demonstrated by the project, including new methodologies, scientific observations, materials or technologies.

❖ Probability of Leading to High-Impact Outcomes: The anticipated contribution of the project to the scientific community and/or space industry. This may include scientific publications, contributions to future research, or the potential for further development and implementation in real space missions. While high-impact scientific and technological outcomes are preferred, proposals that demonstrate a strong commitment to public outreach and science communication, including social media, conferences, and other dissemination activities, will also be favourably assessed.

❖ Feasibility: The technical feasibility of the project, considering logistics, available resources, and technological requirements, as well as its operational feasibility, including the complexity of experimental procedures and data collection during the mission.

❖ Schedule: The time required to prepare the research project before the Asclepios VII mission, along with an estimate of the time needed for the crew to conduct the experiments or test the prototypes.

❖ Cost: The total estimated cost of the project, including potential expenses that Asclepios may need to cover if the Principal Investigator (PI) is unable to secure independent funding. Costs may include materials, logistics, and required authorisations.

❖ Asclepios Unique Selling Point: The extent to which the project specifically benefits from, or requires, an analogue mission environment such as Asclepios to achieve its research objectives and collect meaningful data.

❖ Ethics: Preference will be given to projects that do not require ethical approval or can obtain it by the end of Phase B. This criterion aims to minimise the risk of complications or delays arising from potential rejection of ethical approval by the relevant Swiss Cantonal Ethics Committee before the mission. Further information is available in the PI support info for Ethics.docx.

❖ Sustainability: Priority will be given to projects that minimise their environmental impact, particularly by avoiding air transport whenever possible.
❖ Safety: Projects must minimise potential risks to the health and safety of analogue astronauts.
❖ Partnership: Projects submitted by existing Asclepios partners will receive favourable consideration during the selection process.

If you would like to participate in this Call for Projects, fill out the **Google form** and attach the **Outline proposal** by **November 29th, 2026, 23:59 CET**. For more general information please refer to https://asclepios.ch/, or for more details contact asclepios.research@gmail.com or asclepios.sc@gmail.com.

Q&A

If you would like more information about the Call for Projects or have any doubts regarding the **Outline proposal**, Asclepios will conduct weekly live meetings through the month of November, open to all PIs, to answer their questions. To ensure each researcher is granted enough time, make sure to reserve your spot in the following link: **Book your Q&A slot**