



Press release

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Lunar base in the rocks of the Grimsel pass

The EPFL student project Asclepios, which organizes analogue space missions, has made public the dates of its Asclepios I mission. It will take place in Switzerland from the 3rd to the 12th of February 2021. This mission will be hosted within the infrastructure of a project partner, Nagra at the Grimsel Test Site.

“Analogue” missions

The Asclepios project organizes analogue missions by and for students. These missions simulate real space activities while remaining on Earth. They provide a platform for laboratories and the industry to test their equipment under realistic conditions. The student aspect of the project is inherited from the parent association Space@yourService. The motivation comes from the fact that today's students will most likely be tomorrow's astronauts and aerospace engineers. They can therefore gain their first experience today thanks to the Asclepios project and its missions.

A lunar everyday

The mission will have nothing to do with holidays! On Earth, three teams will take turns at the mission control centre to ensure permanent liaison with the base. The astronauts, meanwhile, will have a busy schedule. Every hour of the day will be planned so that they can complete the marathon that is life in space. Conducting experiments, repairing the base, exploring the lunar caves, every minute counts because on the Moon, time is precious. Life itself will be a challenge as analogue astronauts will have to live ten days together in a austere base where even the temperature will be rationed.

Supervised students

To achieve the level of realism required, the teams are well supervised. The project forges partnerships with educational institutions to enable academic work to be carried out. Professional mentors such as Swiss astronaut Claude Nicollier or Professor Bernard Foing of the European Space Agency (ESA) advise the members. Within a year these students were already ready to carry out their first mission before Covid-19 compromised the launch.

A partnership at the project's core

The Asclepios project does not have infrastructures adapted to the level of realism necessary for one of its missions. This is why it is forging partnerships with companies that have sites capable of being refurbished to reproduce a lunar base. Nagra (National Cooperative for the Disposal of Radioactive Waste) is the competence center for the disposal of radioactive waste in Switzerland. Nagra's mandate is to find solutions that ensure long-term safety of man and the environment. Related research is carried out in two underground rock laboratories. The Grimsel Test Site, which is owned by Nagra, inspired the "exploration" theme of Asclepios I with its special character.

An association at the origin of the project

The project is the work of Space@yourService, an association of students from EPFL whose aim is to promote space sciences to the general public. In particular, it organises the Asclepios project, the Lausanne edition of Astronomy on Tap and the Vivalys mission (a similar mission for young children).

Useful links:

- Everything on the project
<https://asclepios.ch/asclepios-en/the-project/>
- The recruitment
<https://asclepios.ch/join-the-astronaut-crew/>
- Space@yourService, Asclepios parent association
<https://www.epfl.ch/campus/associations/list/spaceat/>
- Astronomy on Tap Lausanne
<http://aotlausanne.ch/EN/>
- Grimsel Test Site, Nagra, Asclepios I partner
<https://www.nagra.ch/en>; <https://www.grimsel.com/>

Complementary informations:

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Photograph of an underground test tunnel in the Grimsel test site.
Source: Comet Photoshopping GmbH, Dieter Enz.

Additional photographs

All photographs below have been taken by members of the Asclepios project and can be credited as coming from the project.



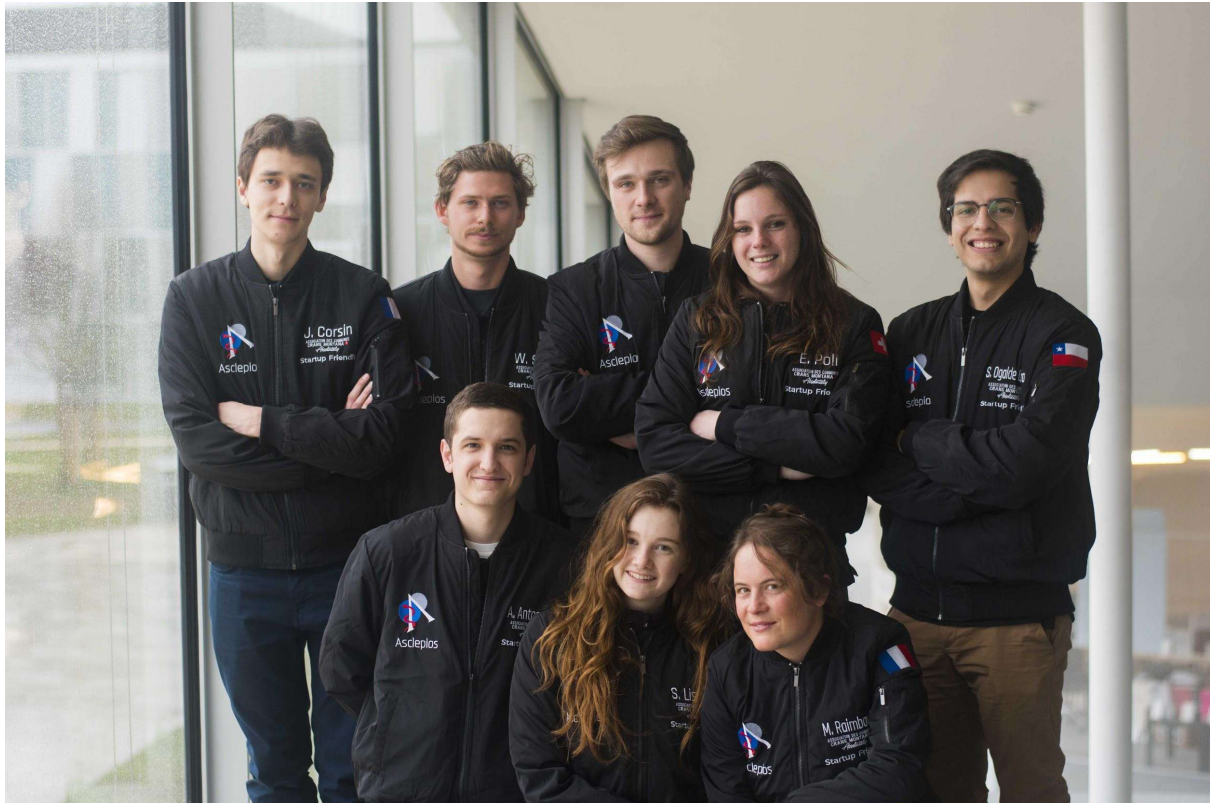
Initial visit of Nagra's Grimsel test site at the Grimsel Pass (July 2020, starting from left: Théodore Bellwald, Chloé Carrière, Somaya Bennani, Ingo Blechschmidt).



Workshop in polar conditions in Crans-Montana with the explorer Alban Michon (February 2020, starting from left: Eleonore Poli, Christian Cardinaux, Manuela Raimbault, Sebastian Ogalde Castro, Willem Suter, Alban Michon, Sophie Lismore)



Mission control center during the rehearsal of the Asclepios I Mission at EPFL (February 2020, starting from left: Matthieu Leydier, Christian Cardinaux, Elfie Roy, Aubin Antonsanti, Marcellin Feasson)



Analogue astronauts of the Asclepios I mission at EPFL. (From upper left to upper right: Julien Corsin, Willem Suter, Christian Cardinaux, Eleonore Poli, Sebastian Ogalde Castro. From lower left to lower right: Aubin Antonsanti, Sophie Lismore, Manuela Raimbault)