University of Zurich[UZH]

UZH Space Hub

UZH Space Hub Newsletter

Dear Members of the UZH Space Hub,

Despite the difficult times we are going through, we would like to keep you informed about all space news and activities. Indeed, although social distancing forced us to cancel all public events, we are going on with online meetings! Our event, The Space you need, has been rescheduled and will take place online (more information below). Moreover, we are proud to announce that currently an UZH Space Hub experiment is beeing conducted on the International Space Station, where it was brought by a SpaceX rocket from Cape Canaveral on March 6. You can see a picture of the launch here above and read more in the text below.
Finally, to be sure to reach everyone in the community, we kindly ask the group leaders to forward this e-mail to PhD students and postdocs, and invite them to subscribe to our newsletter.

Have a nice read and stay safe,

UZH Space Hub Team

Events

The Space you need

Thanks to the great flexibility of our speakers, we have been able to **reschedule** our event. It will take place on the online platform **Zoom on April 8, from 14:00 to 16:30.** If you wonder about what funding opportunities exist for researchers and companies to work on space projects, you certainly should not miss this event. We will have the support of experts from the Swiss Space Center, Euresearch and ESA BIC, who will present and give you all the details about ESA opportunities and Horizon Europe.

If you are interested, please read the full program and do not forget to register. The event is free of charge but for organizational purposes registration is mandatory. Details to access the online platform will be sent to the participants the day before.

Registration

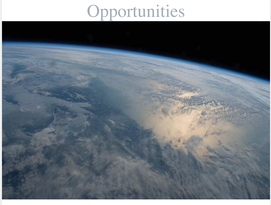
News

Producing Human Tissue in Space

On March 6, at 11:50 p.m. EST the University of Zurich has sent adult human mesenchymal stem cells to the International Space Station (ISS) with the SpaceX CRS-20 mission. Researchers from the group of Prof. Oliver Ullrich and Dr. Cora Thiel, belonging to the UZH Space Hub, will explore the production of various human tissues in weightlessness in a public-private partnership with Airbus Defence and Space. Physical forces such as gravity influence how stem cells differentiate and how the formation and regeneration of tissue is organized. Therefore, weightlessness on the ISS could offer a unique tool to produce human tissue for transplantation and precision medicine and as an alternative to animal experiments.
Images credits: NASA

Read more

Opportunities



Suborbital flight for less than 10K

Could microgravity boost your research or provide new information? Would you like to fly your own "UZH Space Hub space mission"? Within our cooperation network, we currently have the unique possibility to offer a suborbital spaceflight with at least 3 minutes of microgravity at an unbeatable price of less than 10K Euro. The price is for a basic size of 1U and max 1 kg payload (max. 28V / 20W power supply). The costs are pure flight costs and do not include any hardware. The more participants come together, the cheaper the price per participant. Mission support, hardware design and hardware construction can be provided within our partner network (not for free of course, but at reasonable costs) and we are happy to help you with mission planning and execution.

If you are interested, please get in touch with Prof. Oliver Ullrich **by April 15th**. A quick "I am interested" is sufficient for now. After that, we will certainly need some more details (dimensions, volume, power, requirements, logistics, etc.). Prof. Ullrich is coordinating the mission concept and has to make a confirmation to the provider by 31 May.

Mesures de Positionnement 2020 - Extended Deadline

The Mesure de Positionnement 2020 is an initiative led by the State Secretariat for Education, Research and Innovation SERI/Swiss Space Office (SSO) for the promotion of Swiss competences related to space activities. Now, the next Call for Proposals is open. The main objectives are to foster and to promote Swiss technological and scientific competences that have a clear potential for space products and services/applications. The selected projects will start in November 2020 for a duration of up to 15 months and can each be awarded a maximum of 250'000.- CHF.

All **proposals** should be **submitted** to the Swiss Space Center **by May 5, 2020**. All relevant information, including full applicable rules, topics, financial details and procedures are accessible in this document.

Space4Impact

Are you a registered and less than 5 years old startup with a space connection and aligned with at least one of the United Nations Sustainable Development Goals? Then, you should consider Space4Impact, the new initiative supported by ESA BIC Switzerland and the Swiss Space Center. You can find more information and **apply by April 15, 2020** here.

Meet the Space Hub Team

Our director Oliver: upside-down

The fact that Oliver sometimes has to look at things upside down is part of his research: the UZH Space Hub Director has so far spent more than seven hours in weightlessness, equivalent to about 1200 parabolas flown - and wants to understand how gravity controls the function and homeostasis of human cells. He is a principle investigator for the European and U.S. space life sciences research program with 16 years of experience as leader of 19 parabolic flights, six suborbital and seven orbital research missions, mostly on board the International Space Station (ISS). As initiator of the Swiss Parabolic Flights operated from Dübendorf, he has brought weightlessness directly into the heart of Zurich. He is a Physician and Biochemist, Full Professor of Anatomy at the University of Zurich, Professor of Space Biotechnology at the Otto-von-Guericke-University Magdeburg, Professor of Space Medicine at the EAH Jena, Adjunct Professor at the Beijing Institute of Technology, Academician of the International Academy of Astronautics, Vice President of the German Society for Aerospace Medicine, President of the Swiss SkyLab Foundation and Co-Founder of the UZH Start-Up Nova Space Biotechnology GmbH. He has also graduated from the Pontifical Lateran University in Rome and is interested in the relation between Faith and Science. He loves research and teaching and has received several significant national and international awards.

UZH Space Hub R&D and Operations Team

As you can see, the Space Hub does not stop, we just moved to digital! Are you wondering who is we? Then, let us introduce you the Research, Development and Operations Team, together in this picture taken during our last skype meeting while working for you from home. One person, Dr. Liliana Layer is missing since she is leaving the UZH Space Hub soon: we would like to thank you for the time you spent with us, we very much appreciated your support!
Together and with our various background, we support the UZH Space Hub community, take care of our events and distribute relevant information. Would you like to get to know us better?

Read more

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