



PRESS KIT

2026

BUILDING THE FUTURE OF LIFE SCIENCE IN SPACE

Commercial Space Biotechnology -

Enabling Research. Accelerating Discovery. Advancing Human Health.

Yuri is a global commercial space biotechnology company building the life science infrastructure for Low Earth Orbit. Through end-to-end research services, advanced microgravity platforms and commercial space laboratories, we enable groundbreaking discoveries that improve life on Earth.

SPACE BIOTECH FOR A BETTER LIFE.

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01 About Yuri

BUILDING THE FUTURE OF LIFE SCIENCE IN SPACE

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Yuri is a global commercial space biotechnology company building the life science infrastructure for Low Earth Orbit. Through end-to-end research services, advanced microgravity platforms and commercial space laboratories, we enable groundbreaking discoveries that improve life on Earth.

Founded in 2019, Yuri combines expertise in biotechnology, life sciences and aerospace engineering to make space research accessible, reliable, and commercially viable. As a platform provider and integrated research and mission partner, Yuri supports every stage of a microgravity research project – from scientific concept and study design to hardware development, launch, in-orbit operations, sample return and data analysis, working with qualified partners where specialized biological expertise is required.

With headquarters in Germany and an international presence in Luxembourg and the United States, Yuri collaborates with leading pharmaceutical companies, biotechnology innovators, research institutions, commercial space stations and government agencies worldwide.

Our vision is simple: to unlock the full potential of microgravity and transform it into real-world solutions that improve human health, accelerate innovation and shape the future of biotechnology.

YURI AT A GLANCE

Founded

2019

Headquarters

Meckenbeuren, Germany

Global Presence

Germany | Luxembourg | United States

Employees

30+

Customers Worldwide

60+

Countries Served

25+

Research Missions

25+

Space Labs Launched

150+



01 About Yuri

OUR MISSION

Making microgravity accessible for life science innovation.

We develop end-to-end solutions that enable researchers and industry to conduct world-class science in microgravity - from initial concept to scientific results.

OUR VISION

A future where microgravity accelerates breakthroughs that improve life on Earth.

OUR VALUES

Stay Courageous

We embrace bold ideas, challenge convention, and continuously push the boundaries of science and innovation.

Celebrate Diversity

Great innovation comes from diverse perspectives. We foster an inclusive environment where collaboration drives progress.

Do Good

Our technologies are developed with one purpose in mind: creating meaningful impact for people and society through science.

Take Care

We value long-term partnerships, care for our employees, support our customers, and respect our environment.

Speak Up

Open communication, transparency, and mutual respect are fundamental to the way we work.

WHY YURI?

Because the future of biotechnology will not be built by one discipline alone.

It will be built by scientists, engineers, physicians, innovators, and entrepreneurs working together across Earth and space.

Yuri brings these worlds together.

“TOMORROW’S BREAKTHROUGHS
BEGIN BEYOND EARTH’S GRAVITY.”



02 Why Microgravity

ADVANCING LIFE SCIENCE THROUGH MICROGRAVITY

Gravity Changes Biology. Removing It Changes What's Possible.

Microgravity provides a unique environment for studying biological processes. With greatly reduced sedimentation and buoyancy-driven convection, cells, tissues, proteins and other biological systems can behave differently than they do under normal gravity on Earth.

This gives researchers new ways to investigate disease mechanisms, improve biological models and explore novel approaches to drug development and biomanufacturing.

For Yuri, space is not the destination:

It is a tool for better science.

KEY RESEARCH AREAS

Drug Discovery

Exploring biological mechanisms and potential therapeutic approaches under conditions that are difficult to reproduce under normal gravity on Earth.

Cell & Stem Cell Research

Investigating cellular development, differentiation and behavior in microgravity.

Organoids & Tissue Models

Studying complex three-dimensional biological systems under altered gravitational conditions.

Protein Crystallization

Using microgravity to support research into protein structures and potential drug targets.

Biomanufacturing

Exploring how the space environment could enable new or improved biological production processes.

“MICROGRAVITY OPENS A NEW DIMENSION
FOR LIFE SCIENCE R&D.”



03 What We Do

FROM SCIENTIFIC QUESTION TO SPACE-BASED RESEARCH

Yuri makes microgravity practical and accessible for life science research.

We combine scientific expertise, space-qualified hardware and mission services to support customers throughout the complete research journey.

OUR OFFERING

Science-as-a-Service

Scientific support and integrated research services for organizations that want to explore microgravity without building their own space capabilities, complemented by qualified partners where specialized biological expertise is required.

Lab-as-a-Service

Access to flight-proven and adaptable laboratory infrastructure for conducting experiments in space.

Microgravity Platforms

Modular research hardware designed for biological experiments in orbit.

Ground-Based Simulation

Microgravity simulators for experiment preparation, validation and terrestrial research.

Custom Development

Tailored bioreactors and research hardware designed around specific scientific requirements.



04 Our Platforms

BUILT FOR SCIENCE. DESIGNED FOR SPACE.

Modular, flight-ready research infrastructure for life science, from ground-based simulation to experiments in orbit.

Yuri develops and operates modular research platforms that enable advanced life-science experiments across the full microgravity research journey.

OUR RESEARCH PLATFORMS - **SCIENCETAXI**

SCIENCETAXI - Modular laboratories for life science in orbit.

ScienceTaxi is Yuri's family of autonomous biotechnology laboratory platforms for low Earth orbit and future commercial destinations.

The portfolio includes **BioSpin** for automated incubation and centrifugation, **BioHub** for parallel plug-and-play life-science research, and **BioForge** for advanced 3D bioprinting and cultivation in microgravity.

Bringing laboratory-grade life science to orbit.



BUILT AROUND THE SCIENCE - One platform family. Multiple research possibilities.

ScienceTaxi gives researchers access to orbital laboratory infrastructure without the need to develop a complete space-based research system from scratch.

Its modular approach allows researchers to select the capabilities that best match their scientific question and experimental workflow, while automated operation and remote control help reduce operational complexity and crew interaction.

This creates a more streamlined pathway from experiment development to research in orbit and supports both individual studies and recurring life-science research in low Earth orbit.

Making microgravity research more accessible, repeatable and scalable.

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04 Our Platforms

OUR RESEARCH PLATFORMS - **SCIENCESHELLS**

BIOREACTORS & MINILABS - Modular hardware built around the experiment.

Yuri's ScienceShell bioreactors and minilabs are automated, modular experimental units for life-science and bio-engineering research in microgravity and on Earth.

Their adaptable architecture supports different biological samples, experimental volumes and workflows.

One platform. Many scientific possibilities.



FROM CELL CULTURE TO ADVANCED BIOENGINEERING.

ScienceShells adapt the hardware to the science – not the other way around.

Depending on the application, integrated systems can support automated fluid handling, nutrient exchange and fixation, illumination, sensing, imaging and programmable experiment control.

This enables researchers to automate complex biological processes while maintaining controlled and reproducible experimental conditions. Applications range from cell and microbial culture to microscopy, plant research and bioelectrochemical experiments.

NEED SOMETHING CUSTOM?

When standard hardware is not enough, Yuri develops custom bioreactors tailored to specific biological samples, processes and research objectives.

Standardized where possible. Customized where science requires it.



04 Our Platforms

OUR RESEARCH PLATFORMS - **MICROGRAVITY SIMULATION**

YURI RPM 2.0

SIMULATED MICROGRAVITY. REAL RESEARCH ON EARTH.

The **Yuri RPM 2.0** is a ground-based research platform for simulated microgravity and selected partial-gravity conditions.

As one of the world's most widely used and cited Random Positioning Machines for microgravity research, it has become an established tool for researchers across a wide range of life-science disciplines.

It enables researchers to investigate biological responses, validate hypotheses and prepare experiments before spaceflight - directly in the laboratory.



TEST EARLIER. PREPARE BETTER.

The RPM 2.0 supports pre- and post-flight research, protocol development and reference studies across fields such as cell biology, cancer research, tissue engineering, microbiology and plant biology.

Designed for flexible laboratory use, it can also be integrated into controlled environments such as incubators.

Better preparation. Stronger experimental design. More insight from every experiment.



05 Science-as-a-Service

YOUR RESEARCH. OUR SPACE EXPERTISE.

End-to-End Support for Microgravity Research

Conducting research in microgravity requires more than getting an experiment into orbit.

Yuri acts as a scientific and operational partner, supporting customers from the first research question through mission execution and beyond.

Yuri brings together life-science expertise, engineering, hardware, access to space and a network of qualified partners within one integrated research and mission service.

FROM IDEA TO RESULTS

1. Scientific Concept

Define the research question and identify where microgravity can add scientific value.

2. Study Design

Develop the experimental approach, requirements and success criteria.

3. Experiment Development

Adapt existing Yuri platforms or develop customized hardware and workflows.

4. Ground Testing

Validate the experiment and prepare it for the space environment.

5. Mission Integration & Launch

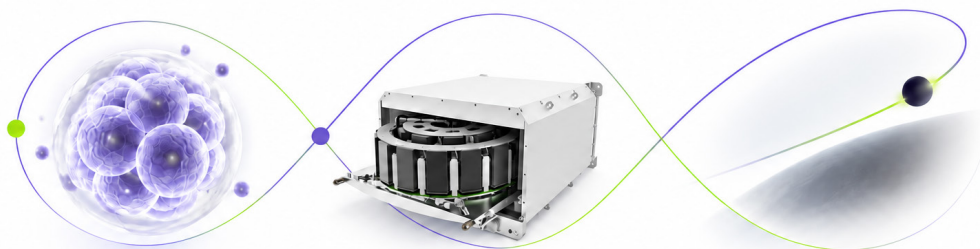
Manage integration requirements and prepare the experiment for flight.

6. In-Orbit Operations

Execute and monitor the experiment in microgravity.

7. Sample Return & Analysis

Return samples where required and support post-flight analysis and interpretation.



“SCIENCE, ENGINEERING AND SPACE ACCESS -
ALL IN ONE PLACE.”



06 Industries We Serve

MICROGRAVITY FOR REAL-WORLD INNOVATION

Turning the unique conditions of space into scientific and commercial opportunities across industries.

Yuri works with companies, institutions and space infrastructure providers to turn microgravity into scalable research and innovation opportunities.

WHERE WE CREATE IMPACT

PHARMA & HEALTH

Microgravity opens new possibilities for drug discovery, toxicity testing, organoid development and advanced disease models. It allows researchers to investigate selected aging-associated biological processes and explore whether altered gravitational conditions can support more complex or complementary organoid models. Yuri provides the scientific expertise, hardware and mission capabilities to translate these opportunities into scalable R&D programs.

From better models to better medicines.

FOOD & NUTRITION

Microgravity and the space environment provide a unique testbed for exploring resilient crops, alternative proteins, microbial production and next-generation nutrition. Yuri enables companies to investigate new biological processes and translate promising concepts into applications for space and Earth.

Exploring new ways to produce what the future needs.

SPACE STATIONS & FREE-FLYERS

Yuri provides modular, scalable life-science infrastructure for the next generation of orbital platforms. Our standardized and re-flyable systems enable station and free-flyer operators to offer research and biotechnology capabilities to multiple customers and missions.

Building the laboratories of the commercial space economy.

SPACE AGENCIES & INSTITUTES

Yuri supports institutional research programs with end-to-end mission services and proven hardware platforms, from early study design and experiment integration to in-orbit operations and sample or data return.

Turning ambitious research into flight-ready experiments.

“FROM SPACE-BASED RESEARCH TO REAL-WORLD IMPACT.”



07 Why Yuri?

MAKING MICROGRAVITY RESEARCH SIMPLE

One Partner. Every Step.

Microgravity research brings together science, engineering, hardware, spaceflight and operations. Yuri combines its own expertise with a network of qualified partners to provide an integrated end-to-end approach, reducing complexity for researchers and industry.

WHAT SETS YURI APART

END-TO-END - One partner throughout the entire research journey.

From the initial research question and study design to hardware, mission operations and sample or data return, Yuri acts as a single point of contact.

FLIGHT-PROVEN - Built on real mission experience.

Yuri combines flight-proven hardware with hands-on experience from life-science missions in microgravity, creating a reliable foundation for future research programs.

SCIENCE + ENGINEERING - Biology and spaceflight expertise under one roof.

Interdisciplinary teams bring together life sciences, biotechnology and aerospace engineering to translate scientific requirements into flight-ready experiments. Yuri operates at the intersection of biotechnology and space engineering, connecting biological research needs with the realities of spaceflight.

MODULAR & SCALABLE - Start with one experiment. Build toward recurring research.

Standardized, re-flyable platforms can be adapted to different experiments while supporting repeat missions and scalable research programs.

PLATFORM-INDEPENDENT - Research wherever the opportunity is.

Yuri's modular infrastructure is designed for different orbital destinations, from today's ISS to free-flyers and emerging commercial space stations.

FUTURE-READY - Built beyond the ISS.

Yuri is developing research infrastructure for the next generation of commercial destinations in low Earth orbit, including its ScienceTaxi platforms for post-ISS research.

“SCIENCE. ENGINEERING. SPACEFLIGHT. ONE TEAM.”



08 Our Impact

FROM MICROGRAVITY RESEARCH TO REAL-WORLD PROGRESS

Creating Value in Orbit and Beyond

Yuri turns access to microgravity into measurable scientific, technological and commercial impact, enabling researchers and companies to move from individual experiments toward repeatable, scalable research programs.

OUR IMPACT AT A GLANCE

150+ Space Labs Launched

Yuri's hardware and research platforms have enabled more than 150 space labs to reach orbit.

60+ Customers Worldwide

Universities, research institutions, space agencies and commercial innovators around the world use Yuri's technology and services.

Flight-Proven Research Infrastructure

Yuri has successfully supported missions with organizations including ESA, NASA and DLR, alongside commercial biotech and pharma partners.

Research That Returns to Earth

Yuri's platforms are designed not only to launch experiments, but to return samples and data so findings can feed directly into further R&D, IP development and follow-up missions.

Building Continuous Access to Microgravity

With reusable platforms such as ScienceTaxi, Yuri is moving microgravity research away from one-off missions toward recurring and scalable access to orbit. Its first ScienceTaxi BioSpin mission, for example, returned successfully from the ISS with 38 ScienceShell mini-bioreactors aboard.

"RESEARCH IN SPACE.
PROGRESS ON EARTH."

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09 Trusted by Leading Organizations

BUILT ON PROVEN PARTNERSHIPS

Trusted Across Science, Industry and Space

Yuri works with leading space agencies, research institutions, universities and commercial partners to enable life-science research in microgravity.

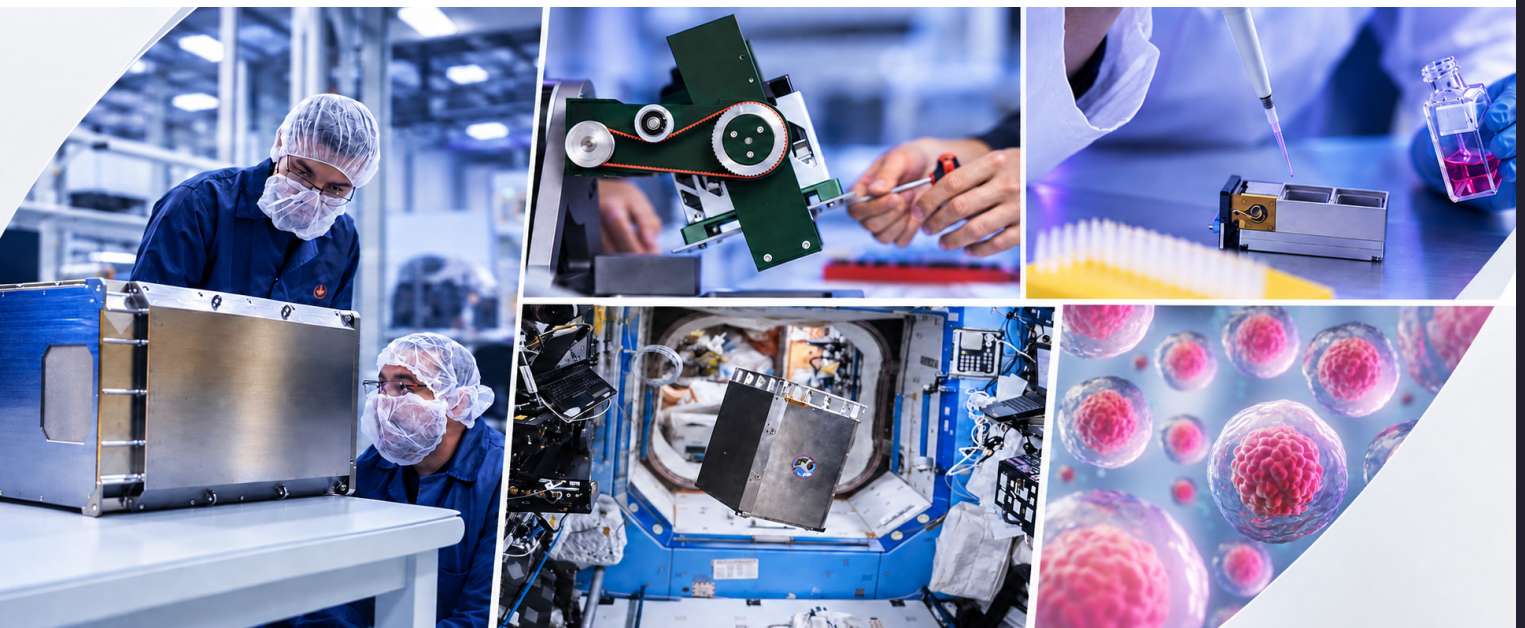
Our flight heritage includes missions with organizations such as **ESA, NASA and the German Aerospace Center (DLR)**, alongside leading universities and commercial biotech and pharma innovators.

Today, these partnerships extend into the next generation of commercial space infrastructure. Yuri is the **dedicated microgravity biology partner for Vast's Haven-1**, providing scalable incubator and bioprinting infrastructure for future research in low Earth orbit.

Collaboration That Moves Science Forward

From institutional research programs to commercial R&D, Yuri brings together scientific expertise, flight-proven hardware and mission capabilities to build long-term research opportunities in space.

“TRUSTED PARTNERSHIPS. PROVEN MISSIONS.
A SHARED FUTURE IN SPACE.”



10 Leadership

DRIVEN BY SCIENCE. BUILT ON SPACEFLIGHT EXPERIENCE.

Leadership at the Intersection of Biotech and Space

Yuri is led by a multidisciplinary team combining deep expertise in human spaceflight, engineering, biotechnology and business, united by the ambition to make microgravity research more accessible, scalable and impactful.

MARIA BIRLEM | CEO & Co-Founder

Maria combines extensive experience in human spaceflight engineering with strategic and entrepreneurial leadership. Before founding Yuri in 2019, she worked at Airbus on payloads for the International Space Station. Today, she drives Yuri's long-term vision, growth and positioning at the intersection of biotechnology and space.

CHRISTIAN BRUDERREK | COO & Co-Founder

Christian brings extensive operational and technical experience in aerospace and human spaceflight. Before co-founding Yuri, he also worked at Airbus on ISS payloads. At Yuri, he focuses on translating complex scientific and mission requirements into reliable, scalable operations and research infrastructure.

DR. DANIEL KASCHUBEK | CTO

Daniel leads Yuri's technology development and engineering activities. He studied Aerospace Engineering at the Technical University of Munich with a focus on astronautics, worked on Ariane 5 propulsion and conducted research on ISS life-support systems at NASA's Johnson Space Center. His scientific background also includes research into life-support systems for long-duration spaceflight.

LEADERSHIP BUILT ON EXPERIENCE

Together, Yuri's leadership brings scientific ambition, engineering expertise and real spaceflight experience into one team, building the infrastructure needed for the next generation of microgravity research.



Christian
Bruderrek

Dr. Daniel
Kaschubek

Maria
Birlem

“BUILT ON SPACEFLIGHT EXPERIENCE.
DRIVEN BY WHAT COMES NEXT.”

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11 Company Culture

BOLD MINDS. SHARED MISSION.

Building Space Biotech Together.

At Yuri, engineers, scientists and business minds from different backgrounds come together around one shared ambition: using microgravity to create meaningful progress in biotechnology and human health. Our culture combines curiosity and courage with responsibility, openness and a strong sense of team.

OUR CORE VALUES

Stay Courageous

We challenge the status quo, take initiative and own what we do.

Do Good

We want the science and technology we advance to create a positive impact for people and society.

Take Care

We put customers and colleagues at the center of our work while acting responsibly toward ourselves and the planet.

Speak Up

Open, direct and transparent communication is an essential part of how we collaborate.

Celebrate Diversity

Different perspectives, experiences and backgrounds make our team and our work stronger.

MORE THAN A WORKPLACE

Yuri combines ambitious scientific and technical work with a close-knit team culture. Regular team events, shared cooking, celebrations and informal get-togethers create opportunities to connect beyond individual projects, while flexible working models support different ways of working and living.

RESPONSIBILITY IS PART OF INNOVATION

Working at the intersection of biotechnology and space comes with responsibility. We aim to develop technologies and research opportunities that create meaningful scientific value while considering their impact on people, society and the environment.

“DIFFERENT MINDS. ONE MISSION.”



12 Contact

LET'S STAY CONNECTED.

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PRESS & MEDIA INQUIRIES

Looking for an interview, background information or material for your story?

Our team is happy to support journalists and media representatives with company information, expert contacts, imagery and background on Yuri's missions, technologies and partnerships.

MEDIA CONTACT

laura.magri@yurigravity.com

PRESS ASSETS

Logos, leadership portraits, product imagery and selected mission visuals are available upon request or via our digital press resources.

<https://yurigravity.com/news-media/media-assets>

FOR MEDIA USE

ABOUT YURI

Yuri is a commercial space biotechnology company developing and operating research infrastructure for life-science experiments in microgravity. Founded in Germany in 2019, Yuri combines biotechnology, aerospace engineering and spaceflight operations to support research from early scientific concept through mission execution and data return. Its modular platforms include orbital biotechnology laboratories, bioreactors and ground-based microgravity simulators, enabling research for pharmaceutical, biotech, institutional and commercial space customers worldwide.

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