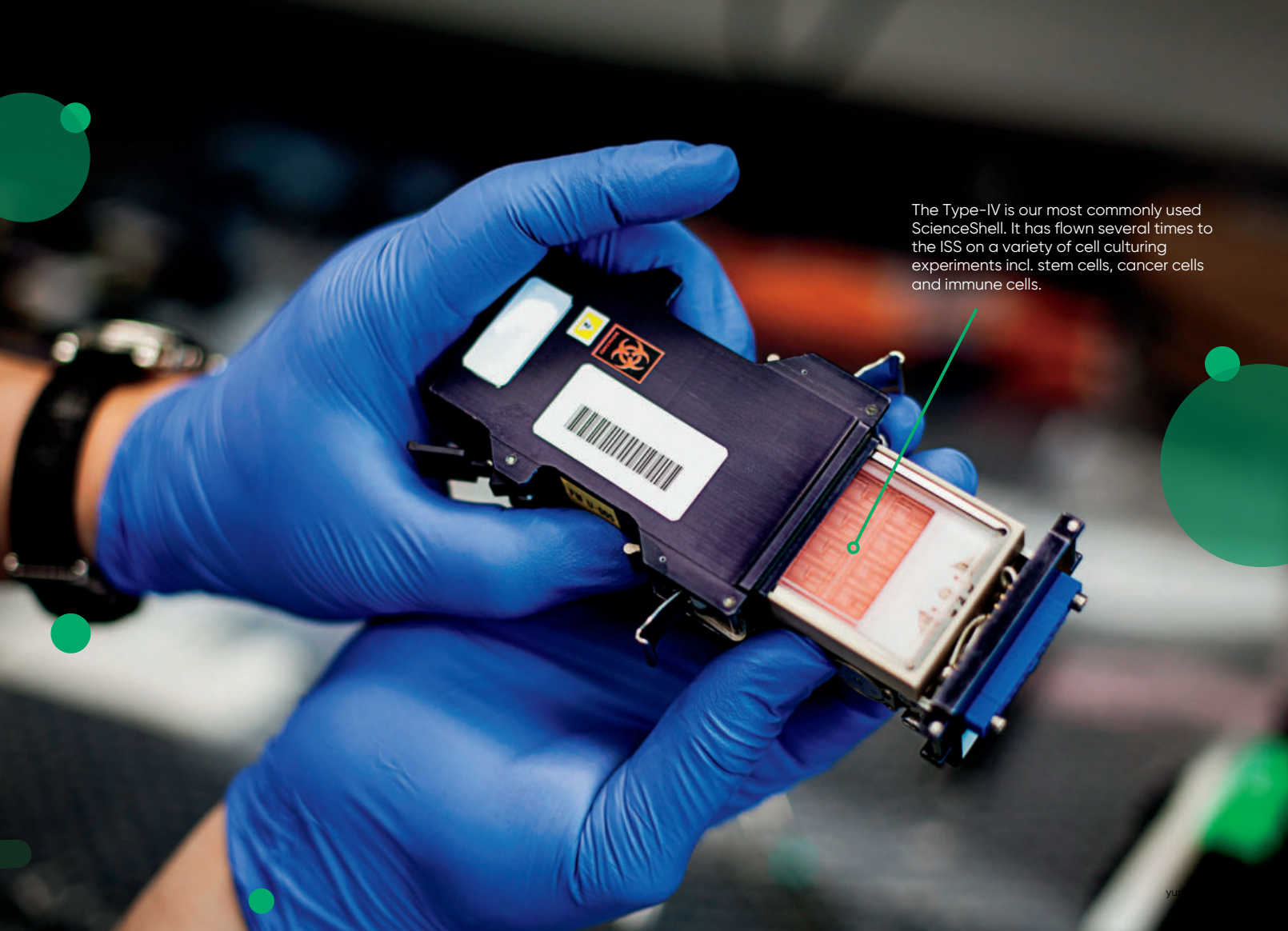
YURI

Hardware Portfolio


The Type-IV is our most commonly used ScienceShell. It has flown several times to the ISS on a variety of cell culturing experiments incl. stem cells, cancer cells and immune cells.

ALL OUR OPTIONS IN ONE GLANCE

Our flight-proven hardware portfolio (ScienceShells) consists of experiment containers (Outer Shell) and specific experiment inserts (Inner Shells). We provide you with ground models for testing and flight models that will be launched to space.

Our ScienceShell portfolio is compatible with ISS facilities of the following partners: Space Tango, Bioserve, LaMont, Ice Cubes, Kayser Italia. We also provide options to simulate microgravity on Earth with our Random Positioning Machine (formerly Airbus) and our Clinostat.

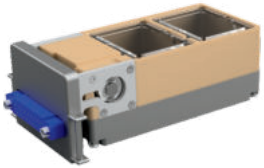
SCAN TO WATCH

ScienceShells in action

Type-V

Active Cell Culturing in Microgravity

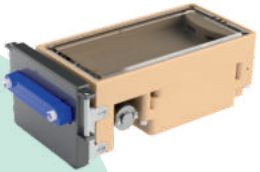
01



Type-IV

Active Cell Culturing in Microgravity

02



2x2-Chamber

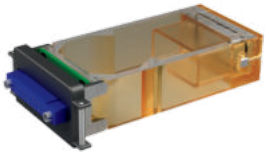
A Petri Dish for Microgravity Research

03

Greenhouse

Growth of Higher Plants

04



SCAN TO WATCH

ScienceShells in action

4-Chamber

A Petri Dish for Microgravity Research

05

8-Chamber

A Petri Dish for Microgravity Research

06

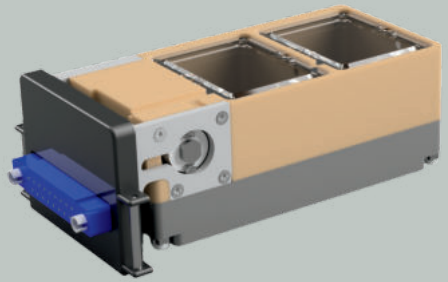
Mini Aquarium

Aquatic System for Microgravity Research

07

Type-V

Active Cell Culturing in Microgravity



- Two Culture Chambers with a volume of 10.8 ml ± 0.3ml each
- One Tank for nutrient or fixation media with a volume of 22 ml ± 0.3ml
- Duration of Media Exchange: approx. 10 min
- Flexible configurations: Fluidic System, Scientific Insert, Window Type

Type-IV

Active Cell Culturing in Microgravity

- One Culture Chamber with a volume of 13.5 ml ± 0.3 ml
- Two Media Exchanges: Refreshment Medium and Fixative
- Two Tanks with a volume of 11ml ± 0.3 ml each
- Duration per Media Exchange: approx. 5min

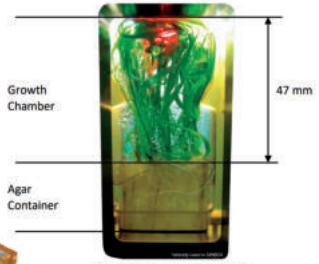
2X2-CHAMBER

A Petri Dish for Microgravity Research

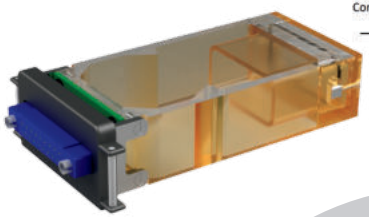
- The 2x2-chamber InnerShell features four individual Culture Chambers – two big ones and two small ones
- All Culture Chambers are covered with a gas-permeable membrane to enable gas exchange for the samples
- Serves as a passive petri dish for a microgravity environment

GREENHOUSE

Growth of Higher Plants in Microgravity



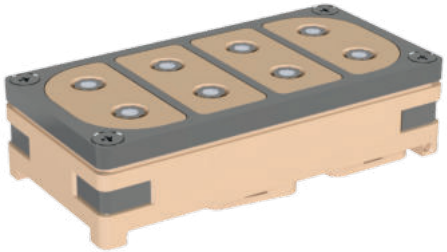
Rice plant inside Greenhouse



- Growth Chamber with a volume of 33.3 ml
- Agar Container with a volume of 9.5 ml
- Gas exchange through gas-permeable membranes
- LED panel for day/night simulation

4-CHAMBER

A Petri Dish for Microgravity Research



- 4 Culture Chambers
- Volume: 6.5 ml per Culture Chamber
- Pressure monitoring or gas exchange through gas-permeable membrane
- Serves as a passive petri dish for a microgravity environment

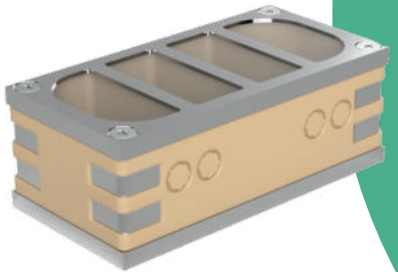
Mini Aquarium

Aquatic System for Microgravity Research

- Miniature Aquarium with a volume of 41 ml
- Gas exchange through gas-permeable membranes
- Optional LED panel for day/night simulation

8-Chamber

A Petri Dish for Microgravity Research



- 8 Culture Chambers
- Volume: 6.7 ml per Culture Chamber
- Gas exchange through gas-permeable membrane

YURI

RPM

Simulate microgravity on 3 dimensions

- Choose gravity levels between 0.001 g to 0.9 g
- Run microgravity experiments in your own incubator
- Control the RPM with the included software
- More than 70% of all RPM studies were done on this model (formerly Airbus)

CLINOSTAT

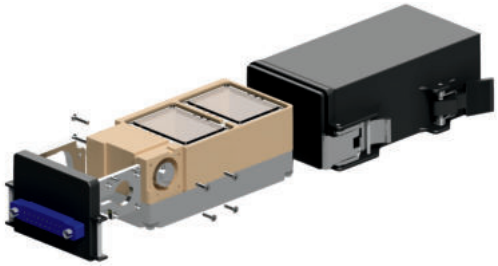
Simulate microgravity on 2 dimensions

- Supports up to 45 samples
- Microgravity, Moon gravity and Mars gravity
- Wide range of compatible sample sizes (1-15ml)
- Control unit outside incubator for permanent surveillance & control
- Automated calculation for optimal rotation

Don't miss out

Features coming soon

- In-flight image and sensory data download
- In-flight adaptation of experiment timeline
- Sensors (O2, pH, pressure)
- Microscope imaging with resolution < 5µm



- Fluorescence imaging
- Active fluidic exchange for cells or bacteria
- Passive O2 exchange
- Complex fluidic systems (lab on a chip)

YURI

Our ScienceShells have been launched on SpaceX and Northrop Grumman rockets for research groups from UCLA or University of Zurich.

YURI

About us

yuri is a space biotech company with experience from 20 ISS payloads for, among others, NASA, ESA, DLR. The team of 30+ engineers and biologists enables life science research in microgravity for scientists worldwide. Besides launching experiments to the ISS, yuri develops Random Positioning Machines and Clinostats for purchase and rental.

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