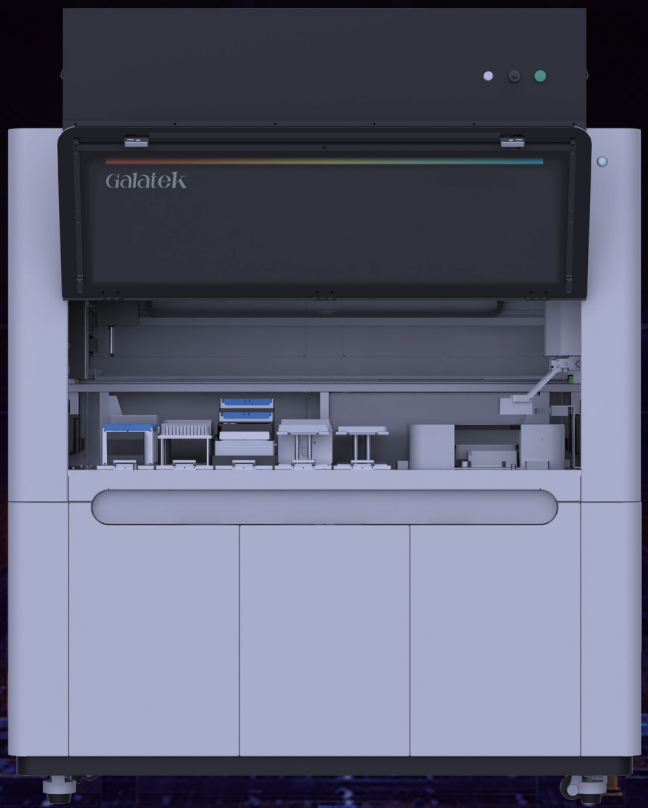
Galatek

Make Organoid Culture Easy for Everyone



Galatek G-Viva Organoid Workstation

Reduces operational complexity and improves culture efficiency

High culture consistency and full data traceability

Product Introduction

The Galatek G-Viva Organoid Workstation is an innovative intelligent solution independently developed by Galatek, specifically designed for organoid culture. It automates a range of complex processes, including cell seeding, plating, expansion, passaging, media replacement, and high-throughput drug addition. By overcoming the limitations of manual operations, the workstation enables traceable and reproducible organoid culture protocols through a unified and standardized software environment, significantly enhancing experimental efficiency and supporting large-scale organoid culture.

Pipetting Module
Flexible 8-channel independent operation with adjustable equal spacing, enabling fast and high precision pipetting

Cooling Module
Enabling the matrixgel to remain liquid state throughout the experiment

Heating Module
Shaking while heating ensures that the matrix gels thoroughly

Positive Pressure HEPA
Isolation of contaminants by negative pressure

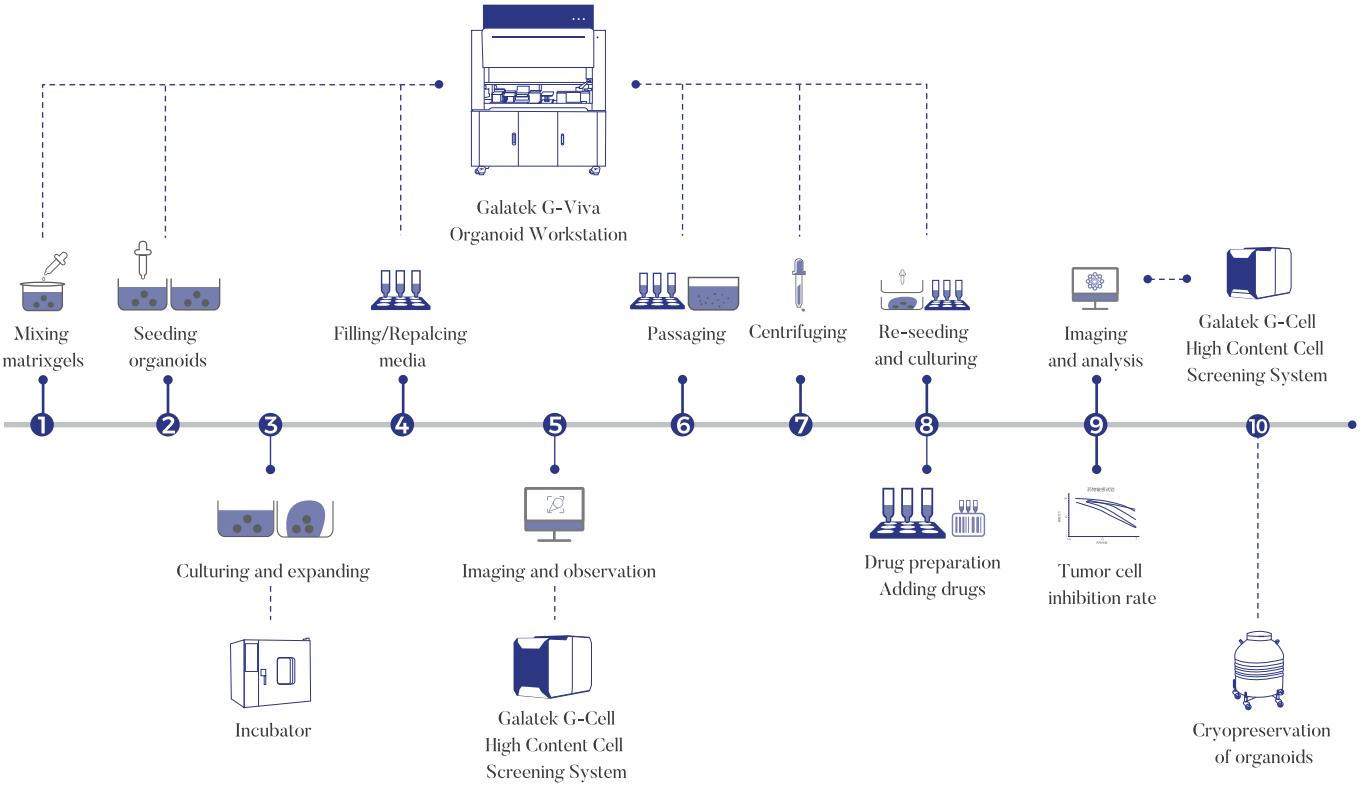
Robotic Arm
Collaborative work, parallel handling, reducing manual errors

Centrifuge
Cell separation, washing, and sedimentation;
Separation of supernatant, matrixgel, and other impurities from organoids

Media Replacement Module
Matching the media replacement flow rate to achieve the lowest residual volume and ensure the effectiveness of the replacement

Operating Process

The Galatek G-Viva has successfully automated the operations of matrixgel dispensing, seeding, culture, media replacement, passaging, drug preparation and addition during organoid culture.

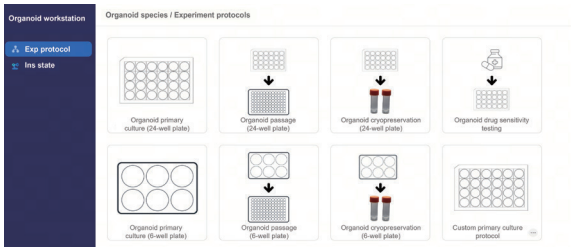


Software Core Functions

The visual software records work logs of organoid primary culture, passaging, cryopreservation, and drug screening processes, elevating process traceability to a new level with scientific data management.

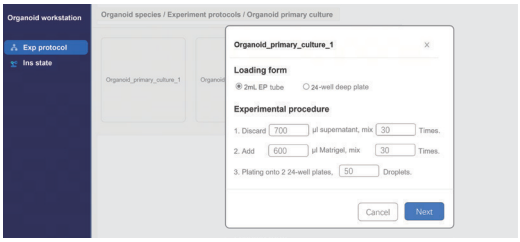
Intelligent and Intuitive User Interface

Create and edit processes using a graphical interface



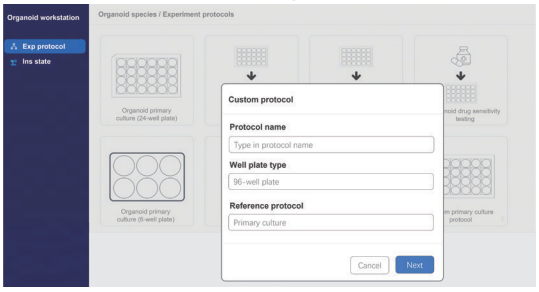
Standardized Experimental Procedures

The visual software operation can record the work logs of organoid primary development and drug screening processes, elevating the process traceability to a new level with scientific data management



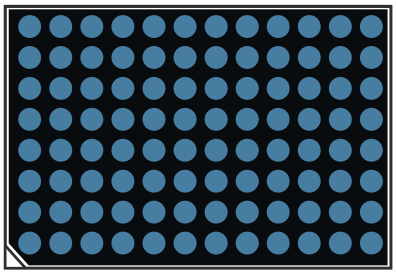
Multi-dimensional Extensibility

Easy integration with LIMS and other systems; Supports configuring multiple control interfaces for various control processes



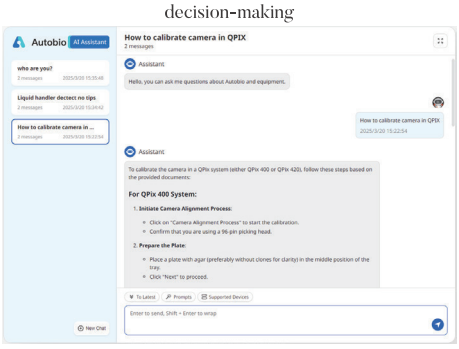
Reproducible Culture Results

Consistent culture conditions and handling help to improve the reproducibility of organoid culture results



Built-in AI Algorithms

Built-in AI tool enables automated decision-making



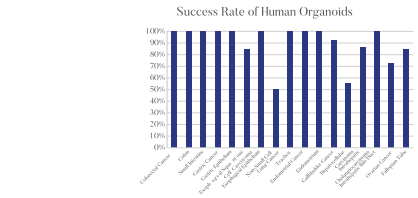
Expandable Integration with Third-party Devices

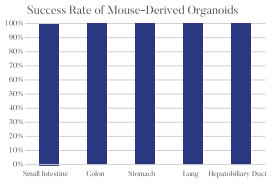
Integrates with various devices, such as high content cell imaging instruments, microplate readers, enabling plug-and-play operation

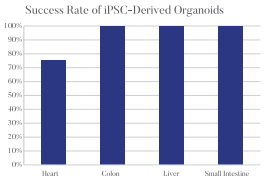
Product Advantages

Improving Organoid Success Rate and Consistency

Built-in standardized protocols improve the success rate and consistency of organoid culture

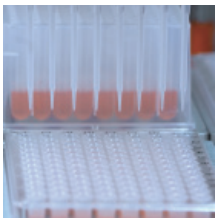




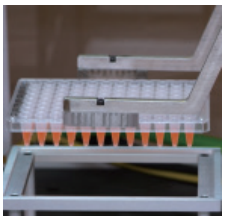


Enhancing Organoid Culture Efficiency

Automates complex processes in organoid culture, significantly improving experimental efficiency



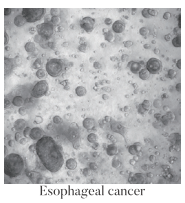
Flexible 8-channel Pipetting



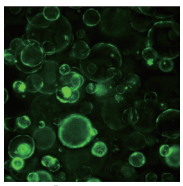
Real-time robotic arm grasping

Compatible with Various Organoid Models

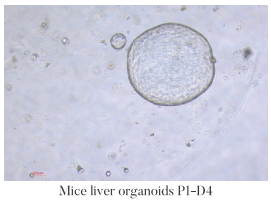
Supports the culture of various adult stem cell-derived and iPSC-derived organoids, demonstrating broad applicability



Esophageal cancer

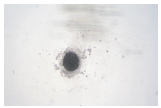


Gastric cancer

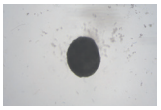


Mice liver organoids P1-D4

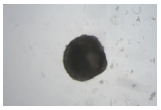
Growth status during the cardiac organoid induction process



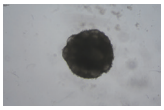
Day 1.5



Day 6.5



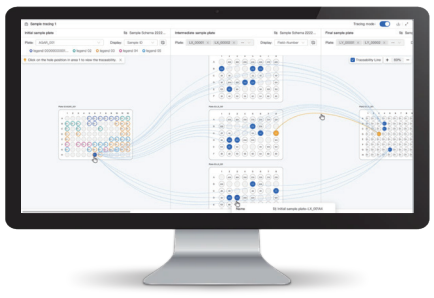
Day 13.5



Day 17.5

Traceable Experimental Data

Whole-process data tracking to improve data traceability and reusability



No need for Separate Consumable Matching

Various organoid media, matrixgels and auxiliary reagents are available

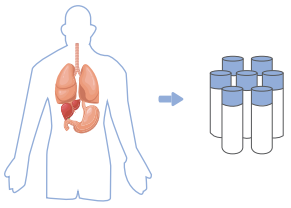
Product Parameters

Product Catalog				
Product Model		**Galatek G-Viva**		
Appearance	Dimensions (L*W*H)	1,600 x 800 x 2,100 mm		
	Net weight	380 kg		
Power Supply	Voltage	100 - 240 VAC		
	Frequency	50/60 Hz		
	Rated power	3.6 kW		
Operating Environment	Temperature	15°C - 32°C		
	Humidity	30% - 80% (no condensation, indoor)		
Pipetting Performance	Pipetting principle	Air displacement		
	Pipetting range	1 - 1,000 µL		
	Pipetting channel types	Flexible 8-channel with adjustable channel spacing from 9 to 18 mm		
	Pipetting accuracy	Tip size	Pipetting volume	Precision
		10 µL	2 µL	5.00%
		10 µL	10 µL	3.00%
		200 µL	50 µL	2.00%
		1000 µL	1000 µL	0.75%
Number of SBS Plate Positions		40		
Robotic Arm	Positioning precision	± 0.2 mm		
	Plate handling arm load capacity	500 g		
	Plate handling arm rotation angle	360°		
Centrifuge	Maximum speed	4,200 rpm		
	Maximum centrifugal force	2,000 g		
Safety Protection	UV lamp	55W*1		
	HEPA system	H14 level, filtration efficiency of 99.995%@0.3 µm		

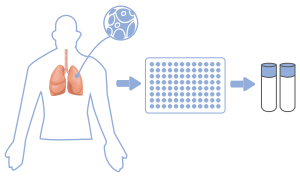
Application Scenarios

Empowering 4 Major Organoid Research Directions

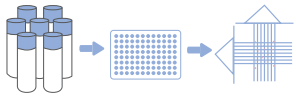
Standardization of Organoid Culture and Biobank Development



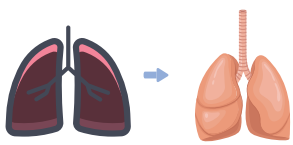
Automated Drug Sensitivity Testing and Analysis for Tumor Organoids



High Throughput Drug Screening and Pharmacodynamics/Toxicity Evaluation



Large-Scale Organoid Expansion and Regenerative Medicine Applications



Galatek

Germany, Singapore,
the United States,
Japan, China

officialmail@galatek.ai

Declaration

This copyright of this manual is owned by GalaTek GmbH (hereinafter referred to as "Galatek"). Without the written permission of Galatek, no individual or organization may copy, edit or translate the contents of this manual into other languages in through any means. All trademarks or logos in this manual belong to Galatek and its providers. Due to manual updates, product updates, parameter changes, etc., the information in this manual maybe changed, upgraded, omitted or incorrect, etc. Galatek shall not be liable for any losses caused by the provision or use of this manual. For more product information and technical services, please contact the official customer service e-mail. All trademarks mentioned in this brochure are protected by law. Galatek has the right to interpret this manual.

Copyright © Galatek