Quasi-Vivo® Bioreactors

Multi chamber interconnected cell culture systems.
Delivers dynamic flow of nutrient through multiple cell culture chambers.
Different cell types can be cultured such as hepatocytes, adipocytes or chondrocytes; fatty or vascular tissue.
Cell types can be cultured in sequence or in parallel to closely mimic human metabolism.
Results in high quality metabolic data rather than high throughput screening using cell death as end point.
Documented studies demonstrate that Quasi-Vivo® provides significant benefits compared with traditional in-vitro tests.

A product of Kirkstall technology and Parker engineering development.

Benefits

- Reduces the cost of drug development
- Cell viability improved by up to seven times
- Delivers relevant reproducible reliable data
- Increases laboratory efficiency
- Fewer false positives and false negatives
- Safer clinical trials
- Provides a more physiologically accurate representation than cultures grown in static well plates

Applications

- Safety and Toxicity testing
- Regenerative Medicine
- ADME studies – liver or pancreas cells included in same system as target organs cells for realistic metabolic data
- Disease modelling
- Drug development
- Stem cell research
Comparison of Drug Development costs using traditional methods versus using Quasi-Vivo®

Traditional Development Costs

<table>
<thead>
<tr>
<th>Number of Compounds</th>
<th>Target Discovery and Validation</th>
<th>Lead to Hit</th>
<th>Optimisation</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Total cost</th>
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<tbody>
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Using Quasi-Vivo® Costs

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Quasi-Vivo® 500

- An advanced recirculating perfusion system to provide “in-vivo” like conditions for cell growth. It uses individual fully flooded culture chambers.
- Kit supplied with support tray, reservoir bottle, tubing and connectors.
- Allows cell cultures on glass discs or on 3D scaffolds

Quasi-Vivo® is a registered trademark of Kirkstall Ltd.