The global demand for nutrition tests is increasing, driven by advances in precision medicine, nutrition screening for mothers and babies, an ageing population and public awareness campaigns for the prevention of cardiovascular and non-communicable diseases.

Nutrition automation system

Nutrition testing methodologies are characterized by high sample throughputs and repetitive process for sample collection, preparation and injection in the analytical instrument.

Trajan Scientific and Medical has more than 30 years of experience in the automation of the entire process of preparation of samples and standards in an environmentally and temperature controlled environment, and injection in the analytical instrument.

We offer a variety of automated preparative or sample collection solutions, ideal for nutrition testing, and provide consultation to generate custom solutions for your specific laboratory needs.
Example of solutions

The system is designed for high throughput nutrition labs, for quality measurements of nutritional analytes such as Omega-3 fatty acids and fat or water-soluble vitamins. Trajan’s expertise in dried blood spot analysis in combination with our automated workflow platforms enables laboratories to shorten sample preparation times, improve productivity and increase sample throughput.

Our automated systems incorporate the CTC PAL robotics which offer a robust, precise, turn-key platform providing complete confidence in sample processing and on-line sample injection.

Chronos control software

Our automation systems are built using the intelligent Chronos software which enables the user to schedule their workflows for autonomous operation and optimal throughput.

- Reproducible experimental conditions.
- Throughput optimization with elimination of timing conflicts.
- Simple graphic user interface.
- Advanced method editing capabilities.
- Compatible with all major brands of analytical instrumentation.

Expansion potential

Grow as your needs grow - nutrition test needs evolve over time: new or improved methodologies, more samples, demand for faster turnaround. All of our solutions are modular and scalable, so we can support you as your needs change. Numerous options allow you to increase sample capacity, add injection or switching valves or modules for sample preparation, accompanying the evolution of your analytical needs.
Service

Tailored service contracts to enable continuous smooth operation of your system and ensure minimal downtime.

Technical specifications

<table>
<thead>
<tr>
<th>Nutrition automation system</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Long 120 cm x-axis length rail PAL3 system</td>
<td>Equipped with robotic tool change capabilities to accurately execute liquid sample handling across wide volumes range (1.2-1000 μL)</td>
</tr>
<tr>
<td>Temperature controlled storage</td>
<td>4-40°C for a range of vials and multiwell plates</td>
</tr>
<tr>
<td>Temperature controlled agitation capabilities</td>
<td>30-200°C, 250-750 rpm</td>
</tr>
<tr>
<td>Fast wash module</td>
<td>Efficient cleaning of syringes / needles (gauge 19-26) with 2 different solvents</td>
</tr>
<tr>
<td>Ultrafast injections</td>
<td>Obtain high quality data acquisition while minimizing GC run times</td>
</tr>
</tbody>
</table>

Trajan is your partner for nutrition testing, operating globally with R&D centers, manufacturing facilities, commercial operations and customer support facilities in Australia, USA, UK, Europe, Japan and Malaysia.

Visit us at www.trajanscimed.com or contact your regional Trajan representative for assistance and further information.

Trajan Scientific and Medical

Science that benefits people

Trajan is actively engaged in developing and delivering solutions that have a positive impact on human wellbeing. Our vision revolves around collaborative partnerships that improve workflows, delivering better results.