

# RADIO-HPLC SYSTEMS

## RADIO-HPLC FOR THE ANALYSIS OF RADIOLABELLED COMPOUNDS

High-Quality HPLC Solutions for Radiotracers Analysis

- ✓ Wide Range of Radio Detectors
- ✓ Digital Signal Integration
- ✓ Full Regulatory Compliance
- ✓ High Analytical Performance

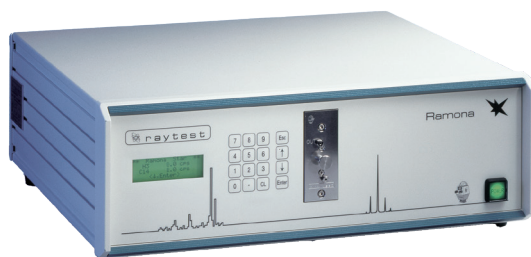
*Our radio-HPLC systems are designed in collaboration with leading manufacturers to provide precise quality control of radiotracers such as such as  $[^{18}\text{F}]\text{FDG}$ ,  $[^{18}\text{F}]\text{PSMA}$ ,  $[^{68}\text{Ga}]\text{PSMA}$  or radiotherapeutics based on Alpha or Beta emitters. Each system integrates high-performance pumps, optimized detectors, advanced software, and radiation shielding to deliver reliable results in compliance with European Pharmacopoeia and FDA guidelines. The modular design allows laboratories to configure the system to their specific needs while ensuring full GMP/GLP compliance and outstanding measurement sensitivity.*

Our radio-HPLC systems combine rapid analysis with exceptional sensitivity and resolution. Detector and pump configurations are optimized for each isotope and tracer type, ensuring superior measurement performance. Digital signal acquisition removes the inaccuracies associated with analogue conversion, while seamless integration with the GINA software provides a single, compliant platform for data acquisition and control. The result is a fully integrated QC solution that meets the strict demands of radiopharmaceutical production and research.



## Radiation Safety and Shielding

Shielding is critical not only for user protection but also for reducing background noise and achieving a low limit of detection. Our systems use optimized shielding configurations that balance performance with practicality, minimizing cost and weight without compromising safety. Special attention is given to waste management : our Wabos solution includes dedicated shielding for standard 1 L waste bottles, ensuring both regulatory compliance and enhanced radiation protection during routine operation.



## Radio Flow detectors

We offer a full range of alpha, beta, and gamma radio detectors with shielding options to match PET, SPECT, and alpha-emitter applications. Selecting the right detector technology is critical for performance, and our experts will help you choose the optimal configuration.

Instrument	POMO Nova	GABI Nova	RAMONA
Probe	Built-in PET probe	Different external probes : - NaI - LaBr3 - Pet probe - Preparative probe for PET - Preparative probe for SPECT	2 internal PMTs with coincidence in combination with different flow cells for Alpha ; Beta or Gamma detection
Flow Cells	Inbuild	Different flow cells with different volumes.	Different flow cells with different volumes. - Liquid scintillator - Solid scintillator - BGO cells
Shielding	Inbuild	Different external shielding in different thickness available	Optional Internal shielding



## Flow cells

Flow cells must be selected according to isotope, tracer chemistry, radiation type, and available activity. We provide multiple detector types, cell designs, and volumes to match the sensitivity and resolution required for each application. Our experts help configure the optimal combination for reliable and reproducible results.

# Software

GINA is our central platform for radio-chromatography data acquisition and evaluation. It offers full control of your radio-HPLC system and supports centralized SQL database integration for multi-instrument laboratories.

GINA ensures GMP/GLP compliance, including 21 CFR Part 11 features such as audit trails, electronic signatures, and advanced user management. Its intuitive interface allows direct instrument control without the need for third-party integration layers, while automatic data transfer and verification simplify QC workflows. Beyond HPLC, GINA can also control TLC, GC, multichannel analyzers, and dose calibrators—making it the core solution for radio-QC laboratories.

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## • HPLCs

High-performance liquid chromatography systems in radiopharmaceutical environments face demanding conditions. We partner with renowned manufacturers to deliver reliable, durable performance HPLC units fully integrated with our detectors and GINA software. Custom detector housings ensure seamless hardware compatibility, while our service team supports installation, maintenance, and ongoing optimization.

## • Application Dedicated Solutions:

Every radiopharmaceutical QC laboratory has unique requirements. Elysia designs radio-HPLC solutions tailored to your tracer, isotope, and workflow. Our configurations are particularly suited for routine use in radiopharmacies, combining low investment and maintenance costs with high reliability, full digital signal integration, and regulatory compliance. The result is a user-friendly system optimized for both daily QC and advanced research applications.

# Services

Elysia is committed to supporting our customers throughout the entire product lifecycle. We offer worldwide installation, maintenance, and training services for all radio-HPLC systems.

Our service and applications team can provide :

- **Basic user training** for routine operations
- **Advanced support**, including IQ/OQ qualification and application-specific training
- **Service Level Agreements (SLA)** tailored to your needs, ranging from preventive maintenance to full re-certification, extended warranty, and comprehensive system support



# Build your radio-HPLC

Configure your radio-HPLC to match your laboratory's requirements by selecting from a wide range of components and options :

<b>Injector</b>	Manual Automatic (with or without temperature control)
<b>Pump</b>	Isocratic Binary Quaternary
<b>Degasser</b>	Standard
<b>Optional special</b>	configurations
<b>Column Selector</b>	None 2, 4, 6, or more columns
<b>Column Oven</b>	Optional, with support for multiple columns
<b>Detector</b>	RID, PAD, UV, MWD, DAD, Conductivity, ECD...
<b>Radio-detector</b>	Pomo Nova, Gabi Nova, Ramona... (alpha, Beta, PET, SPECT)
<b>Waste Handling</b>	Waste valve (optional) Waste shielding (optional)

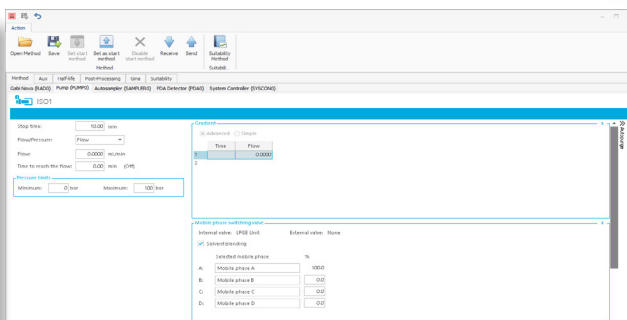
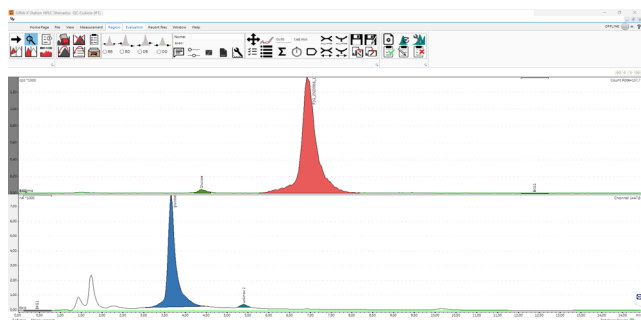


## Choose

### • your Software features

Select the software configuration that best fits your laboratory setup :

Instrument Control	Single-instrument or multi-instrument configurations
Database Management	Local database or centralized SQL database
Access Control	Advanced user management for compliance with GMP/GLP and 21 CFR Part 11



### • your Service Level Agreement

Our Service Level Agreements (SLA) are designed to provide the level of support your laboratory requires:

Bronze	Bronze+	Silver	Gold
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