

French biotech specialised in fluorescent nanoparticles for single, multiplex and custom immuno- or affinity-based assays seeks partners under R&D agreement or commercial agreement with technical assistance in Europe or North America

## Summary

|                                |  |                        |
|--------------------------------|--|------------------------|
| Profile type                   | Company's country  | POD reference          |
| <b>Technology offer</b>        | <b>France</b>  | <b>TOFR20250620002</b> |
| Profile status                 | Type of partnership  | Targeted countries     |
| <b>PUBLISHED</b>               | <b>Research and development cooperation agreement</b><br><b>Commercial agreement with technical assistance</b> | <b>• World</b>         |
| Contact Person                 | Term of validity   | Last update            |
| <a href="#">Enrico FRANZIN</a> | <b>20 Jun 2025</b><br><b>20 Jun 2026</b>   | <b>20 Jun 2025</b>     |

## General Information

### Short summary

A French biotech develops advanced lanthanide-based fluorescent nanoparticles and assays for Research Use Only- RUO, drug discovery, diagnostics, and life sciences. It seeks R&D, diagnostics, pharma and biotech partners in Europe or North America for co-development, licensing, distribution or collaboration in single, multiplex and custom detection technologies. Type of partnership offered are R&D cooperation or commercial agreement with technical assistance (licensing or distribution).

### Full description

Based in Strasbourg, the French company at the interface of chemistry and biology, developing cutting-edge fluorescent nanoparticles and immunoassays for applications in diagnostics, biomedical research, and life sciences. Founded by experts in nanotechnology and bioanalytical chemistry, the company leverages over 15 years of expertise to offer highly sensitive, multiplexed detection tools. It also has all the necessary equipment for the synthesis of nanoparticles, assay development, and analysis.

The core technology relies on lanthanide-based nanoparticles offering exceptional brightness, stability, and time-

resolved fluorescence. These reagents are used in various formats such as TR-FRET - Time-Resolved Förster resonance energy transfer, fluorescent ELISA - Enzyme-Linked Immunosorbent Assay (FLISA - Fluorescence-linked immunosorbent assay), and Lateral Flow Assays, allowing robust and scalable solutions for the detection of proteins, antibodies, DNA, RNA, and other affinity-based targets.

The French company's mission is to make highly sensitive and versatile detection technologies accessible to researchers, diagnostic developers, and biotech companies. The company supports pharmaceutical companies, academic laboratories, and diagnostics firms through:

- Proprietary reagents: ultra-bright fluorescent nanoparticles optimized for biological assays
- Custom development services: tailored assay design for single and multiplex detection (e.g. proteins, antibodies, DNA, RNA)
- Off-the-shelf kits: ready-to-use assays for specific targets such as IgG/IgM, cytokines, or biomarkers of infection and inflammation. Kits can be supplied pre-coupled or as coupling kits to enable integration with the partner's own technology.
- OEM & technology transfer: integration of our nanoparticle technology into partner platforms and products

Partners sought include diagnostics developers, biotech firms, CROs - Contract Research Organizations, and research institutions interested in licensing, co-development, or distribution partnerships. The company is also open to joint research projects, especially within the framework of EU-funded initiatives (e.g., Eurostars, Horizon Europe).

Type of partnerships considered:

- Commercial Agreement with Technical Assistance: For companies interested in integrating the French company's nanoparticle technology into their own assay platforms or instruments. Technical guidance and adaptation support are provided to ensure seamless integration and performance optimization.
- Research & Development Cooperation Agreement: Joint development of custom immunoassays, new multiplex solutions, or technology enhancements. Suitable for partners involved in biomarker discovery, translational research, or the development of next-generation diagnostics. Collaboration may also include participation in European R&D funding programs such as Horizon Europe or Eurostars.

### Advantages and innovations

The French company's lanthanide-based nanoparticles offer unmatched analytical performance compared to traditional fluorescent labels. Their high photostability, long fluorescence lifetime, and low background enable reliable detection of low-abundance targets, even in complex biological samples. These properties also make the technology ideal for improving performance in immunoassays and other affinity-based assays.

The French company introduces a unique innovation in the immunoassay market by combining high sensitivity, speed, ease of use, and cost-efficiency in a single technology platform. Thanks to its Bright-Dtech™ lanthanide-based nanoparticles and TR-FRET multiplexing expertise, the company overcomes the limitations of both traditional ELISA and complex multiplex systems.

Unlike ELISA, which is time-consuming, single-target, and low in sensitivity, or existing multiplexing solutions which are complex and expensive, the French company's solutions allow the detection of 1 to 12 biomarkers with high precision in a simplified workflow. The proprietary Bright-Dtech™ probes deliver strong brightness, long signal lifetime, and superior photo-stability, outperforming competing technologies.

Two key solutions are offered:

- NoW-Dtech™: a fast, precise, and user-friendly alternative to ELISA and classic TR-FRET, requiring minimal instrumentation and providing improved detection performance.
- Multi-Dtech™: the only TR-FRET multiplexing kit available on the market, combining the advantages of TR-FRET and multiplexing with reduced complexity and lower cost.

These solutions enable flexible and scalable immunoassays, fully compatible with standard 96- and 384-well formats, reducing cost per test by up to 80–90% while significantly saving analysis time.

Thanks to its dual innovation -Bright-Dtech™ + Multi-TR-FRET- the French company is positioned to become the global reference in TR-FRET multiplexing, driving fast adoption across diagnostics, pharmaceutical, and research

### Technical specification or expertise sought

#### Stage of development

**Already on the market**

IPR Status

**IPR granted**

IPR Notes

#### Sustainable Development goals

**• Goal 3: Good Health and Well-being**

## Partner Sought

#### Expected role of the partner

The partner is expected to contribute to the co-development, validation, and/or distribution of diagnostic kits or research-use assays. This may also include integrating the French company's fluorescent nanoparticle technology into existing detection platforms or product pipelines.

#### Potential partners include:

- Diagnostics companies
- Biotech and pharmaceutical firms
- Academic or clinical research labs
- CROs (Contract Research Organizations)
- Instrument or assay platform manufacturers

#### The partner's role may include:

- Adapting or scaling up assays to fit specific regulatory or market needs
- Participating in EU-funded projects (e.g. Horizon Europe, Eurostars)
- Supporting preclinical or clinical validation studies
- Assisting with quality assurance and regulatory submissions (e.g. CE-IVD, FDA)
- Providing market access through commercial distribution of ready-to-use kits
- Offering technical or scientific feedback to enhance future developments

Partners interested in investment may also contribute to the scale-up and industrialisation of TR-FRET multiplexing solutions.

#### Type of partnership

**Research and development cooperation agreement**

**Commercial agreement with technical assistance**

#### Type and size of the partner

- **Other**
- **University**
- **SME 50 - 249**
- **Big company**
- **R&D Institution**
- **SME <=10**
- **SME 11-49**

## Dissemination

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## Technology keywords

- **06002001 - Biochemistry / Biophysics**
- **09001002 - Analyses / Test Facilities and Methods**
- **06002007 - In vitro Testing, Trials**
- **06002002 - Cellular and Molecular Biology**
- **06001005 - Diagnostics, Diagnosis**

## Targeted countries

- **World**

## Market keywords

- **05005014 - Oncology**
- **05001001 - Diagnostic services**
- **05001007 - Other diagnostic**
- **05001005 - Molecular diagnosis**
- **05001002 - In-vitro diagnostics**

## Sector groups involved