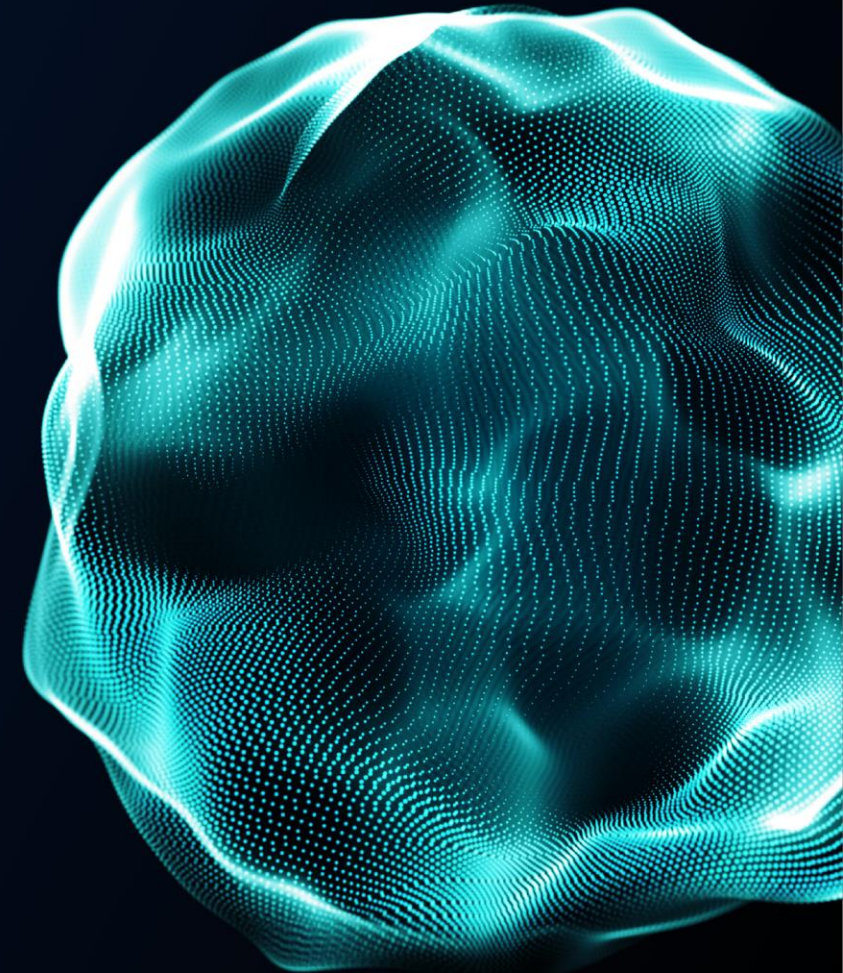
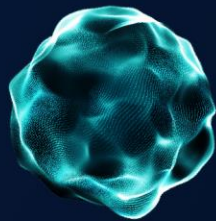
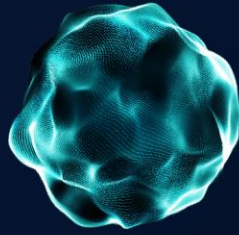
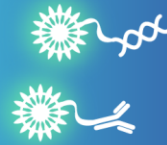


Poly-Dtech Products & Services training



Bright-Dtech™ technology

Simplified and controlled coupling
Easy addition of proteins and DNA around nanoparticles



Multi-detection
Several colors of nanoparticles available



Biocompatibility
No cell toxicity



High photostability
No signal loss



High brightness
Improvement of the detection



Specific spectral signature and long lifetime
Optimal detection of the signal compared to background noise



Poly-Dtech - value proposal

Academic & Industrial Research Laboratories,
Biotech & Pharma companies, CROs

From \$280

To solve detection issues
(enhancing detection and reducing background noise)

Bright-Dtech™

Public /SME

Link-Dtech™

Public /SME

Conjugation service

Bigger companies

From \$405

To improve assay efficiency
(time, cost, performance)

NoW-Dtech™

Public /SME

FLISA-Dtech™

Public /SME

Multiplex Service

Bigger companies

depending on the project

To convert ELISA test into TR-FRET, TR-FLISA or Lateral Flow test

TR-FRET Service

Bigger companies

TR-FLISA Service

Bigger companies

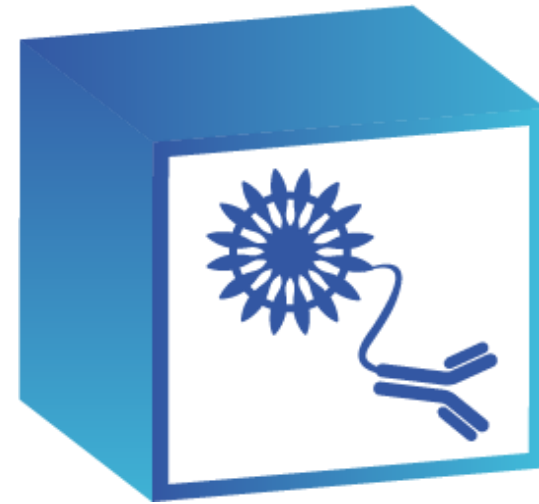
Lateral Flow Service

Bigger companies

PRODUCTS

SERVICES

Our products



Bright-Dtech™ kits

Nanoparticles Ready-To-Use kits

Innovative solutions to integrate in protocols to have higher detection sensitivity



Choose your color

- **Terbium (Green)***
- **Europium (Red)***
- **Samarium (Orange)**
- **Dysprosium (Yellow)**
- **Neodymium (Infrared)**
- **Ytterbium (Infrared)**

*best choices for small amount of antigen

Choose your coupling

- **Anti-Human IgG**
- **Anti-Rabbit IgG**
- **Anti-Goat IgG**
- **Anti-Mouse IgG**
- **Streptavidin**
- **Biotin**
- **Without coupling**

Applications

- **ELISA**
- **TR-FRET**
- **TR-FLISA**
- **Lateral Flow**
- **Multiplex**
- **Western Blot**
- **Quantitative PCR**



Enhance your detection

Bright-Dtech™ kits

Nanoparticles Ready-To-Use kits

Competitive advantages

Type	Bright-Dtech	Fluorescent molecules	Quantum dots	Lanthanide complexes	Polymer nanoparticles
Brightness	Strong	Medium	Medium	Weak	Strong
Time life	Long	Short	Short	Long	Short
Photostability	Strong	Weak	Strong	Strong	Medium



Positioning

Solving detection issues by decreasing background noise and enhancing brightness

Targeted audience

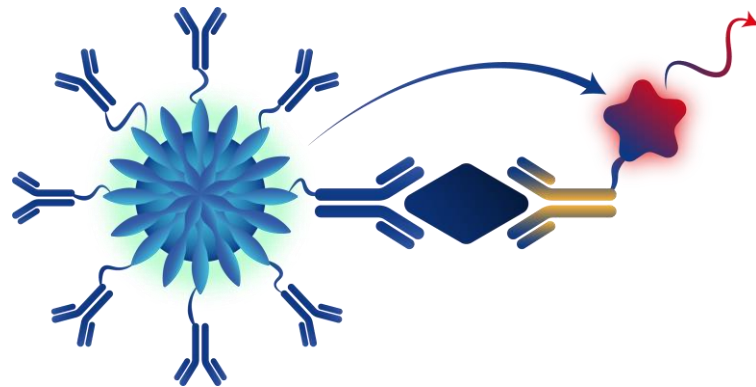
**Researchers & Scientists
Laboratory Technicians**

Having detection issues with traditional assays

NoW-Dtech™ kits

TR-FRET Assay Kits

Immunoassay allowing the quantitative detection of biomarkers in serum, plasma, cell supernatant. Based on TR-FRET, a mix-and-read, wash-free, cost-effective method with Bright-Dtech™ technology.



Choose your biomarker

- Human IgG
- PSA
- Trastuzumab (Monkey)

Soon...

- TNF- α
- IL-6
- IL-8
- IFN- γ
- IL-1 β
- IL-2
- IL-4
- IL-10

NoW-Dtech™ kits

TR-FRET Assay Kits



Competitive advantages (over ELISA)

- **Sensitivity x30**
- **Assay time/2 (less than 2h)**
- **Costs/3**
- **Wash-free (homogeneous)**
- **No background noise**

Positioning

Sensitivity x30
Assay time /2
Costs /3

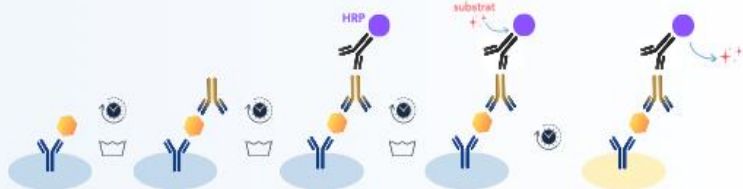
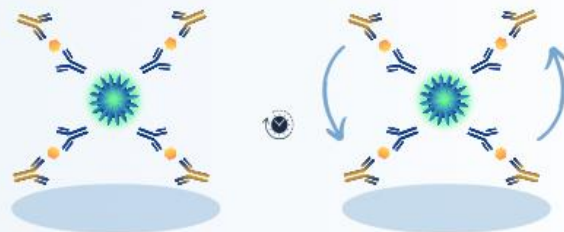
Targeted audience

R&D Project Managers
Laboratory Directors
Buyers & Sourcing Managers

→ **Wanting to increase assay efficiency
(time and performance)**

ELISA vs TR-FRET

Advantages of TR-FRET over ELISA

Type	Principle	Sensitivity	Time	Protocol
ELISA Immunoassay based on antigen-antibody interactions	Uses enzyme-labeled antibodies to detect antigen-antibody complexes.	+	4h	
TR-FRET Detection technique based on the transfer of fluorescence energy between two fluorophores	Two fluorophores are used, one as a donor and the other as an acceptor, and the signal is measured with a delay between excitation and detection	+++	2h30	

ELISA vs TR-FRET

How to sell NoW-Dtech™?

To buyers

Example for Human IgG

ELISA

TR-FRET

Test price

\$634

\$424

Labor price

\$144

\$90

Consumables

\$55

\$19

Final cost

\$832

\$532

To end-users

Double your daily testing capacity

Uses 3 times fewer consumables

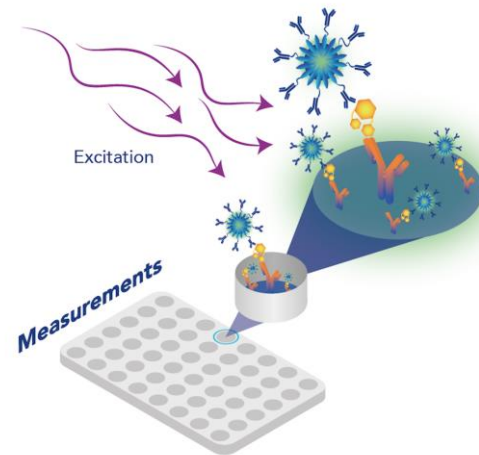
Increase by 30 the detection sensitivity

No-wash assay (mix-and-read)

FLISA-Dtech™ kits

TR-FLISA Assay Kits

Immunoassay allowing the quantitative detection of biomarkers in serum, plasma, cell supernatant. Based on TR-FLISA, a variant of the ELISA technique, replacing the enzymatic reaction with a fluorescent signal to reduce handling steps.



Choose your biomarker

- **SARS-Cov-2** (*Indirect & Sandwich*)
- **HER2**

FLISA-Dtech™ kits

TR-FLISA Assay Kits



Competitive advantages (over ELISA)

- **Assay time /3 (no enzymatic revelation)**
- **Costs/3**
- **High sensitivity**
- **No background noise**
- **Long signal stability**

Positioning

**Assay time /3 (no enzymatic revelation)
Costs /3**



Targeted audience

**R&D Project Managers
Laboratory Directors
Buyers & Sourcing Managers**

→ **Wanting to increase assay efficiency
(time and performance)**

ELISA vs TR-FLISA

Advantages of TR-FLISA over ELISA

Type	Principle	Sensitivity	Time	Protocol
ELISA Immunoassay based on antigen-antibody interactions	Uses enzyme-labeled antibodies to detect antigen-antibody complexes.	+	4h	
TR-FLISA Variant of ELISA that replaces the enzymatic revelation with a fluorescent signal	Uses antibodies conjugated to fluorophores to detect the presence of biomarkers	++	1h30	

ELISA vs TR-FLISA

How to sell FLISA-Dtech™?

To Buyers

Example for SARS-CoV-2

ELISA

TR-FLISA

Test price

\$708

\$463

Labor price

\$144

\$54

Consumables

\$55

\$40

Final cost

\$907

\$557

To end-users

Daily testing capacity x3

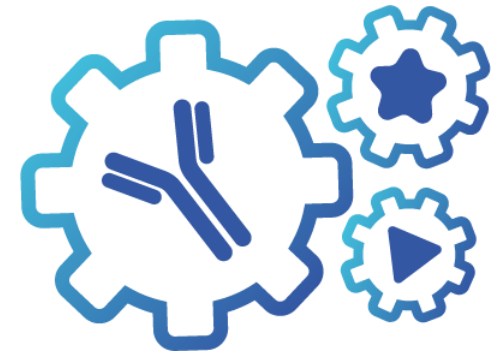
Use 2 times fewer consumables

Increase by 30 the detection sensitivity

No enzymatic revelation



Our services



Custom Development

Our services made by experts to meet specific needs

Custom Development by Poly-Dtech:

EXPERTISE

Team of experts in assays and lanthanide nanoparticles

EFFICIENCY

Time-saver and cost-effective to accelerate the R&D process

FLEXIBILITY

Customization & adaptation to the most specific needs

Custom Conjugation Service

Custom Assay Development:

TR-FRET Assay Development

Multiplex Assay Development

TR-FLISA Assay Development

Lateral Flow Assay Development

Custom Conjugation Service

To conjugate Bright-Dtech™

We conjugate antibodies or other biological entities with Bright-Dtech™ in 3 working days

Advantages

- **Fast**
- **Made by experts**
- **High efficiency**
- **Controlled coupling**
- **Cost-effective**

Applications

- **ELISA**
- **TR-FRET**
- **TR-FLISA**
- **Lateral Flow**
- **Multiplex**
- **Western Blot**
- **Quantitative PCR**



Link-Dtech™ kits

kits to conjugate Bright-Dtech™ by yourself

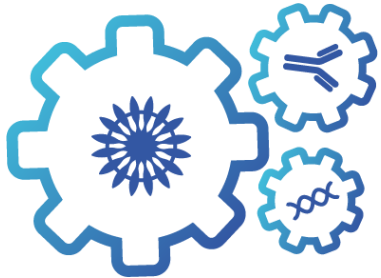
Positioning

Rigorous process made by experts for expansive or rare products in 3 working days

Targeted audience

**Researchers & Scientists
Laboratory Technicians**

Who don't want to waste expensive or rare products (prefer to entrust Poly-Dtech experts)



TR-FRET Assay Development

We develop, optimize, validate and manufacture custom ready-to-use TR-FRET kits or convert an ELISA test into a TR-FRET test

Advantages

- Wash-free
- No background noise
- Fast detection
- Improved performances
- Made by experts
- Cost-effective

Positioning

Converting an ELISA test into a TR-FRET mix-and-read test with excellent reproducibility for a faster and more accurate detection

1

Preliminary Research
1-3 months*

2

Optimization
2-6 months*

3

Validation
1-2 months*

** depending on the project*

Targeted audience

R&D Project Managers
Laboratory Directors
Buyers & Sourcing Managers

Opened to new technologies wanting to increase assay efficiency when ELISA assay is no longer effective



TR-FRET Assay Development

Example of an assay development for Innovative Diagnostics



Conversion of an ELISA into a TR-FRET test

Improved assay performances
(detection sensitivity, no background noise,...)

Better throughput

Cost reduction

Long-term time saving

Multiplex Assay Development

We develop mix-and-read multiplex assays for the simultaneous detection of various biomarkers in a single assay

Advantages

- Simultaneous detection of multiple targets (up to 12)
- Sensitivity x30
- Assay time /3
- Costs /3
- Customizable tests
- No additional equipment needed

Positioning

Detecting up to 12 targets in a single mix-and-read assay

1 Preliminary Research
1-3 months*

2 Optimization
2-6 months*

3 Validation
1-2 months*

** depending on the project*

Targeted audience

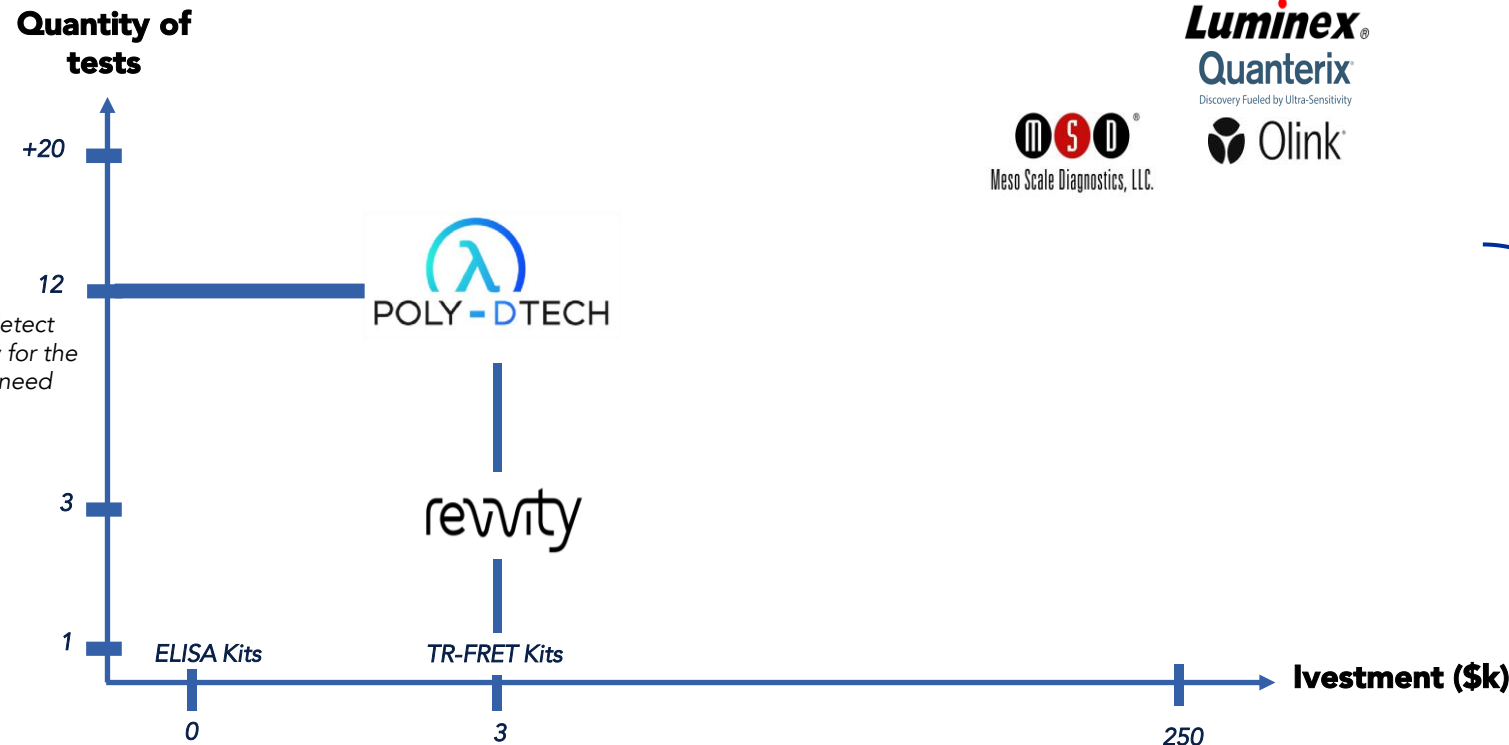
R&D Project Managers
Laboratory Directors
Buyers & Sourcing Managers

Opened to new technologies
wanting to increase assay efficiency



Multiplex Assay Development

Competitive advantages of Multiplex by Poly-Dtech over other players of the market



Customers detect and pay only for the targets they need

Only requires the TRF module on a traditional reader

SOON Multi-Dtech™
Customizable multiplex assay test



TNF-α
IL-6
IL-8
IFN-γ
IL-1β
IL-2
IL-4
IL-10

	LUMINEX	POLY-DTECH
Test price	\$2933	\$974
Labor price	\$144	\$54
Consumables	\$54	\$40
Final cost	\$3131	\$1068

TR-FLISA Assay Development

We develop, optimize, validate and manufacture custom TR-FLISA kits or convert an ELISA test into a TR-FLISA test

Advantages

- Reduced assay time
- No background noise
- Fast detection
- Improved performances
- Made by experts
- Cost-effective

1

Preliminary Research
1-3 months*

2

Optimization
2-6 months*

3

Validation
1-2 months*

** depending on the project*

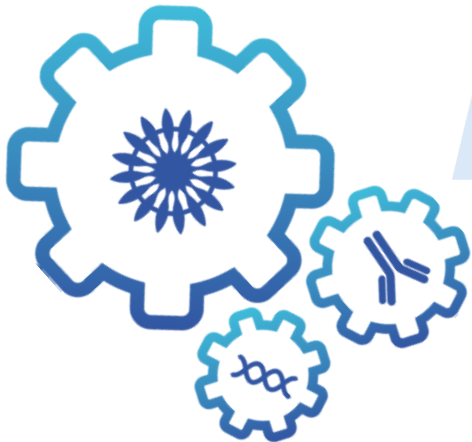
Positioning

Converting an ELISA test into a FLISA test with excellent reproducibility to eliminate the disadvantages of enzymatic revelation

Targeted audience

R&D Project Managers
Laboratory Directors
Buyers & Sourcing Managers

Opened to new technologies wanting to increase assay efficiency when their ELISA assay are no longer effective



LF Assay Development

We develop, optimize, validate and manufacture custom quantitative Lateral Flow assay (rapid test) in 3 months

Advantages

- Sensitivity x100
- Quantitative results (precise concentration)
- Field test with lab performance
- Results in 10 minutes
- Validated and available reader

1

Preliminary Research
2 weeks*

2

Optimization
2 months*

3

Validation
2 weeks*

** depending on the project*



TRF reader to have quantitative results

Positioning

Development of a field rapid test with lab performance in 3 months

Targeted audience

R&D Project Managers
Laboratory Directors
in various fields



Veterinary medicine
Agriculture
Food
Environmental safety

Custom Assay Development

Supplier engagement during the assay development process

Impact of Supplier Engagement

1

Preliminary Research

- Type of test
- Target to be quantified/detected
- The expected amount of antigen
- Matrix
- Choice of primary material

2

Optimization

- Donor
- Acceptor
- Parameters / conditions

3

Validation

- Specificity
- Linearity
- Sensitivity
- Accuracy
- Precision / Robustness

2

5

6

Assay Development Process (months)

Target audience recap

