



Solus NanoFast™

2025

Launch NanoFast Listeria Sep 2025

Agenda

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Introduction

Developed for food safety and environmental testing laboratories that need a cost effective, accurate, lower throughput test method that they can rely on for minimizing the risks to their business. Solus NanoFast™ *Listeria* delivers results in a similar time frame to molecular methods as well as providing a solution that has full support both pre and post adoption.



What Are UCNPS ?

Upconverting Nanoparticles

Inorganic crystals doped with lanthanides

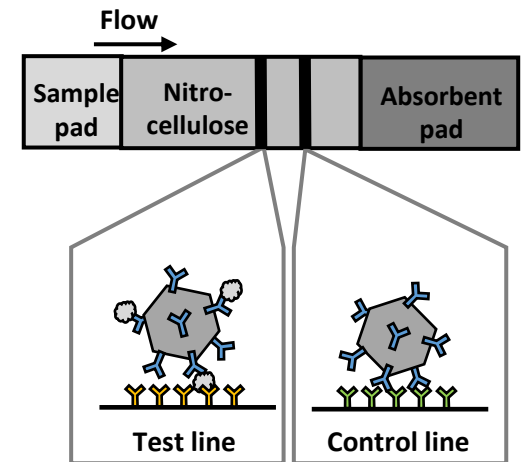
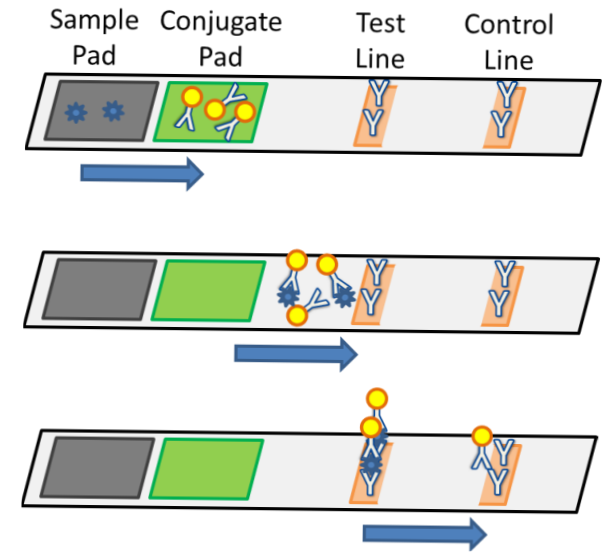
Visible emission (540 & 655 nm)

Near-infrared excitation (980nm)

Total elimination of autofluorescence

Reduced background signal

Higher analytical sensitivity



NanoFast™ Development

Future NanoFast™ tests are now being developed at Solus, and we have full capability to conjugate antibodies to the UCNPs. We are planning to develop a full range of tests:



Salmonella NanoFast™: Target Q1 2026 launch

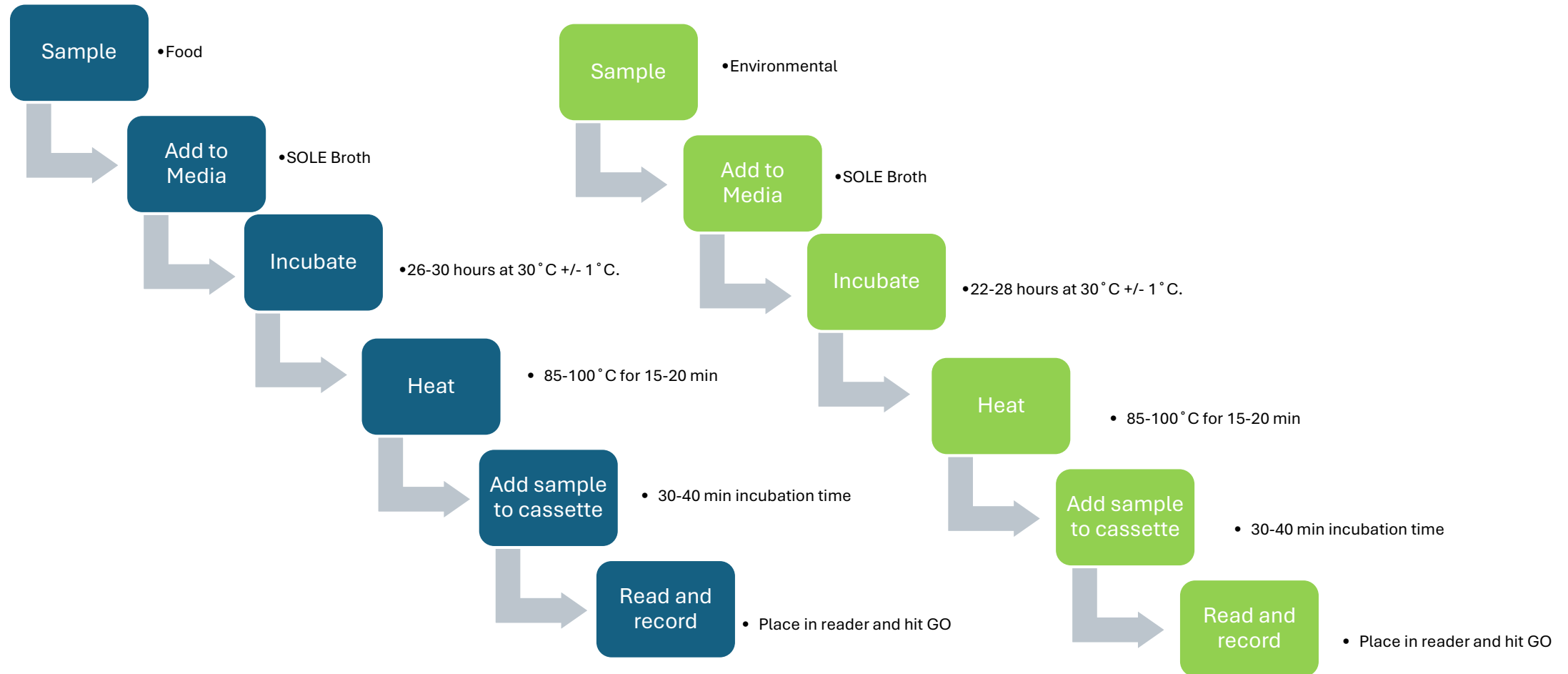


Listeria monocytogenes NanoFast™: Target Q1 2027 launch



STEC NanoFast™?

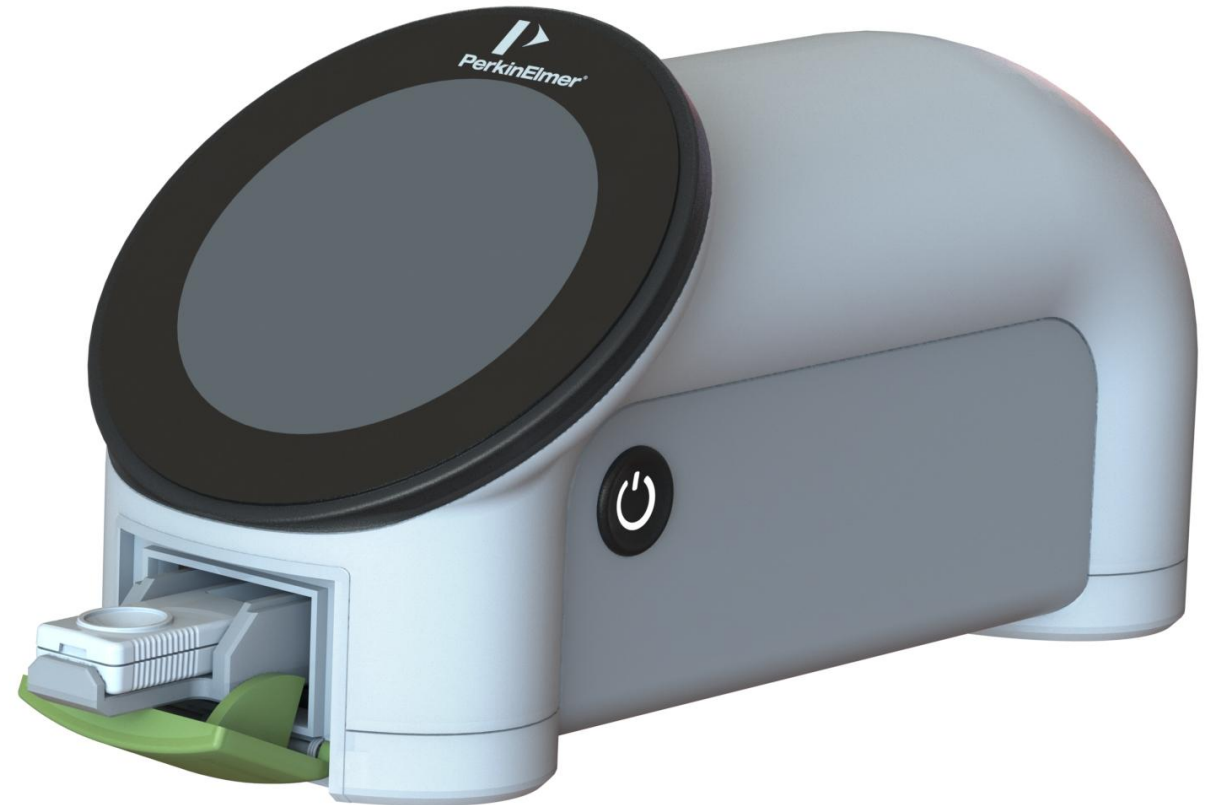
Our Workflow for *Listeria* NanoFast™



Reader

Features and benefits

- 60 second read time
- Portable: Can run on battery and external power bank
- Simple to use – quick training
- Small footprint – 30 x 10 x 15 cm
- No read subjectivity
- Data storage and transfer
- Minimal maintenance/ no service



Validation

Inclusivity/exclusivity and matrix studies were performed by an independent laboratory

- Hot dogs (25 g, 125 g)
- Bagged Romaine lettuce (25 g, 125 g)
- Frozen raw shrimp (25 g)
- Smoked salmon (25 g)
- Soft cheese (pasteurized Brie, 25 g)
- stainless steel (sponges), and plastic (swabs)

Results:

- Inclusivity and exclusivity - all 52 *Listeria* species strains tested were correctly detected.
- Exclusivity - all 37 isolates were correctly excluded.
- Matrix study - no significant statistical differences between the presumptive and confirmed results.



Positioning

Faster Results

Our product delivers results much faster than traditional culture-based methods, reducing turnaround time significantly.

Superior Accuracy

Advanced detection technology minimizes false positives and negatives, improving reliability and customer trust.

Strong Technical Support

We provide comprehensive technical support for smooth implementation and ongoing product usage.

Proven Effectiveness

Validated through AOAC PTM demonstrating the product's perf

Rapid Detection Times

The product delivers next day, enabling timely food safety decision-making.

High Sensitivity and Specificity

10 x more sensitive than traditional LFT technology Ensures accurate identification of *Listeria* spp.

User-Friendly Integration

Easily integrates into existing lab workflows with minimal training and equipment purchasing.

Cost-Effective Solution

Offers a high return on investment by improving operational efficiency and reducing risks.

Target Market

- The initial launch of **AOAC PTM *Listeria* NanoFast™** targets hygiene monitoring.
- Key market is the US, but this is an expanding market worth at least \$25 million globally
- Recent *Listeria* US outbreaks means this is a hot topic for many
- Will attract food manufacturers wanting to do regular but simple onsite testing
- Much better match for smaller customers compared to high throughput ELISA systems
- On site testing gives quicker TAT for –ve release of short shelf-life products
- We could approach **Hygiena** in the US as they are specialists in this market and could access customers in a short time?
- Could be interesting to place with food testing labs that will do follow-up confirmations.
- Subsequent launch of ***Salmonella* NanoFast™** will allow access to smaller testing labs globally worth at least \$200 million



Video

Thank You!

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