

ON-ISLAND GENOMIC TESTING SOLUTIONS FOR PATHOGEN DETECTION

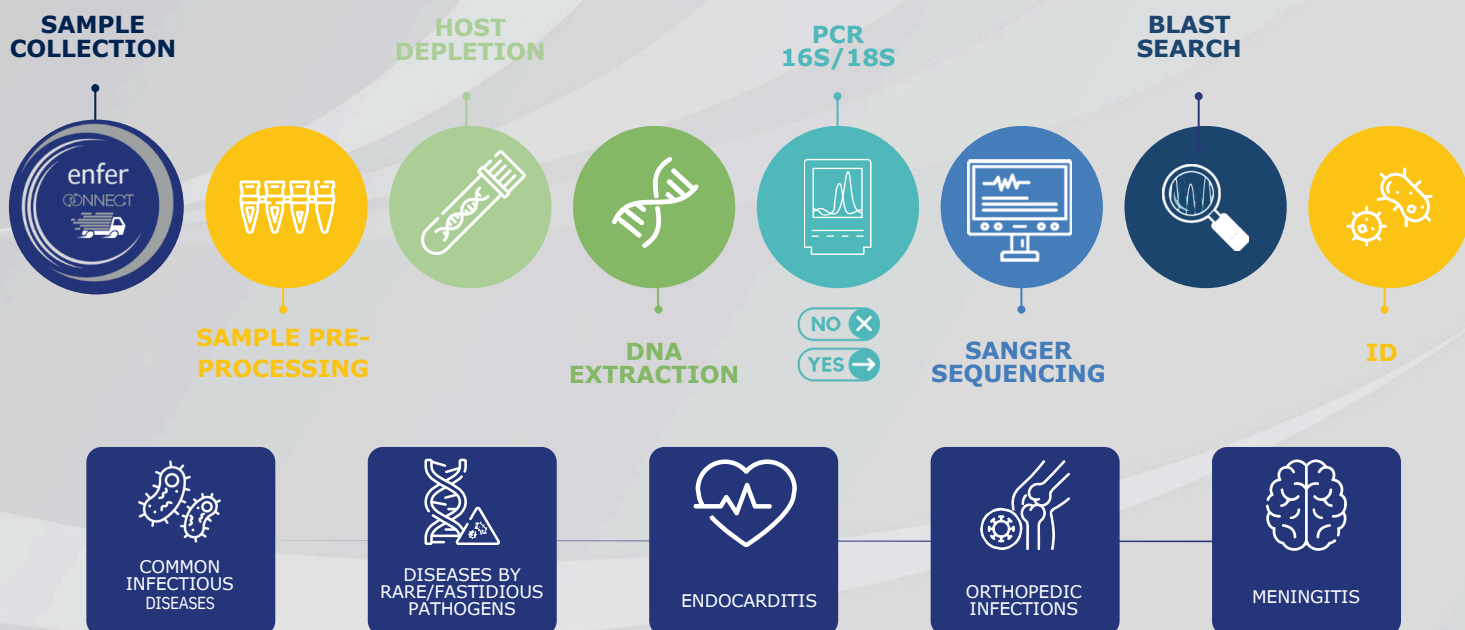
Enfer Medical is at the forefront of enhancing patient care utilising Micro-Dx technology to offer a CE-IVD test for culture-free detection of bacterial and fungal targets directly from patient samples. Molecular analysis of microbes directly from human samples can be challenging, as the presence of human DNA can compromise the sensitivity of broad-range assays. This innovative approach includes an automated protocol for depletion of human DNA prior to microbial DNA extraction, purification and microbial gene detection. In a first for Ireland, the technology has also been validated for use to provide a non-targeted approach for metagenomic-based pathogen detection.

SERVICE FEATURES

- ✓ 16S rRNA bacterial gene detection and sequencing.
- ✓ 18S rRNA fungal gene detection and sequencing.
- ✓ 16S/18S reagents are free of microbial DNA for highest accuracy.
- ✓ Metagenomic sequencing for pathogen identification.
- ✓ One process for body fluids and tissues.

CE IVD

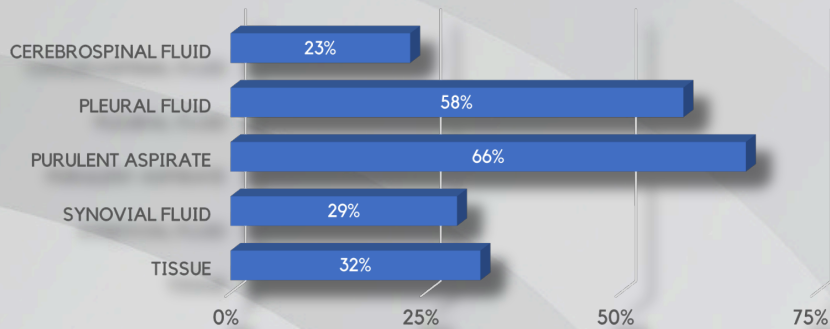
DIAGNOSTIC WORKFLOW & APPLICATIONS



DIAGNOSTIC ADDED VALUE

Micro-Dx™ is a valuable method for the diagnosis of infectious agents, having the advantage of being culture-independent and therefore being able to even detect rare, challenging and non-growing pathogens.

Positive results [%] with Micro-Dx™ in culture-negative samples [1]



The depletion of human DNA in combination with the ultra-pure reagents enables highly sensitive detection of pathogens and allow treatment decisions to be made based on these results improving patient care [1].

ORDER INFORMATION

1 Test Request

Test request via the Enfer Medical portal via a secure FTP link or pre-established, secure IT interface/connection with clients.

2 Sample Collection

Nationwide collections to accommodate diverse, healthcare needs.

3 Microbial Isolation, Detection & ID

Microbial DNA is extracted using an automated extraction system with on-board host depletion followed by real-time 16S 18S PCR and Sanger sequencing for ID.

4 Reporting

Test report via the Enfer Medical portal via a secure FTP link or pre-established, secure IT interface/connection with clients.

ADVANTAGES

Identifies relevant pathogens in culture negative samples and in samples from patients treated with antibiotics.

Improved pathogen identification: 64% higher positivity rate compared to in-house 16S assays [2].

Shorter time-to-result compared to culture.

Added value in culture-negative infections: Change of antimicrobial treatment in 38% of PCR-positive and 7% of PCR-negative cases [1].

Metagenomic sequencing can identify a limitless number of species (compared to <3 for 16S rRNA).

Service	Cost	TAT
16S/18S rRNA gene detection	€75*†	2- 3 days
Metagenomic Sequencing	€250	3-5 days
Specimen types: <ul style="list-style-type: none"> Bodily fluids: >300ul [Stable for 7 days @ 4-8C] Tissue >0.5x0.5x0.5cm For alternative sample types and sample stabilities please contact the laboratory.		
*Positive samples (+) that require Sanger sequencing will incur an additional charge of €100 †Reflex of sample to Metagenomic Sequencing will incur an additional charge of €210		

MY GREEN LAB

Enfer Medical's commitment to enhancing patient care extends beyond rapid turnaround times. By keeping testing on the island of Ireland we contribute to a significant reduction in hospital laboratories' carbon footprint. This conscientious choice aligns with our dedication to both efficient diagnostics and environmental sustainability, ensuring a positive impact on patient outcomes and the planet.



References:

[1] Marbjerg et al., *Diagn Microbiol Infect Dis.* 2020, 22: 115028; [2] Schubert, *ECCMID 2017*, oral presentation OS077.



Call Us
045 819 000



Visit Our Website
www.enfermedical.ie



Our Location
M7 Business Park, Naas, Co.Kildare, Ireland