



**INTRODUCING**  
**MOLZYM**



# ABOUT US

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## Scientific rigor driving innovation since 2003

From CE IVD-marked broad-range molecular diagnostic kits, host DNA depletion technology, MolYsis™, to ultra-clean PCR reagents and assays, Molzym is one of the leading providers of culture-independent molecular solutions. Our technology enables the detection of microbes directly from body fluids, tissues, and swabs using PCR or NGS-based methods. Pathogens can be identified within hours, significantly improving the management of patients with rapid, pathogen-targeted antimicrobial therapy.

With a global distribution network, Molzym delivers high-quality products to researchers and clinical scientists worldwide, contributing to the fight against life-threatening microbial infections and anti-microbial resistances, the biggest global health threat.

# OUR VISION

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A brighter future, empowering diagnostic laboratories to provide physicians with the correct diagnostic information on infection-causing pathogens, rapidly and effectively, resulting in improved patient care.

# OUR MISSION

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To address technological gaps faced daily by clinical laboratories



To provide unique, high-quality molecular products



To enable molecular laboratory experts to reveal microbial DNA from clinical samples

# MOLYSIS™ HOST DNA DEPLETION

MolYsis™ addresses the challenge that host DNA overwhelms the low amount of microbial DNA in complex clinical samples.

MolYsis™ is a unique host DNA depletion technology for the targeted enrichment and isolation of microbial DNA from body fluids, tissues or swabs. Host cells are selectively lysed and up to 99% of host DNA is depleted.

The greatly improved ratio of microbial to host DNA ensures highest sensitivities in subsequent analytical procedures.

- ✓ Depletion of host (human or animal) DNA
- ✓ Broad-range lysis of bacteria & fungi
- ✓ Protocols for body fluids, swabs & tissues
- ✓ DNA-free reagents & plastics
- ✓ Ideally suited for PCR & NGS applications
- ✓ Manual & automated solutions

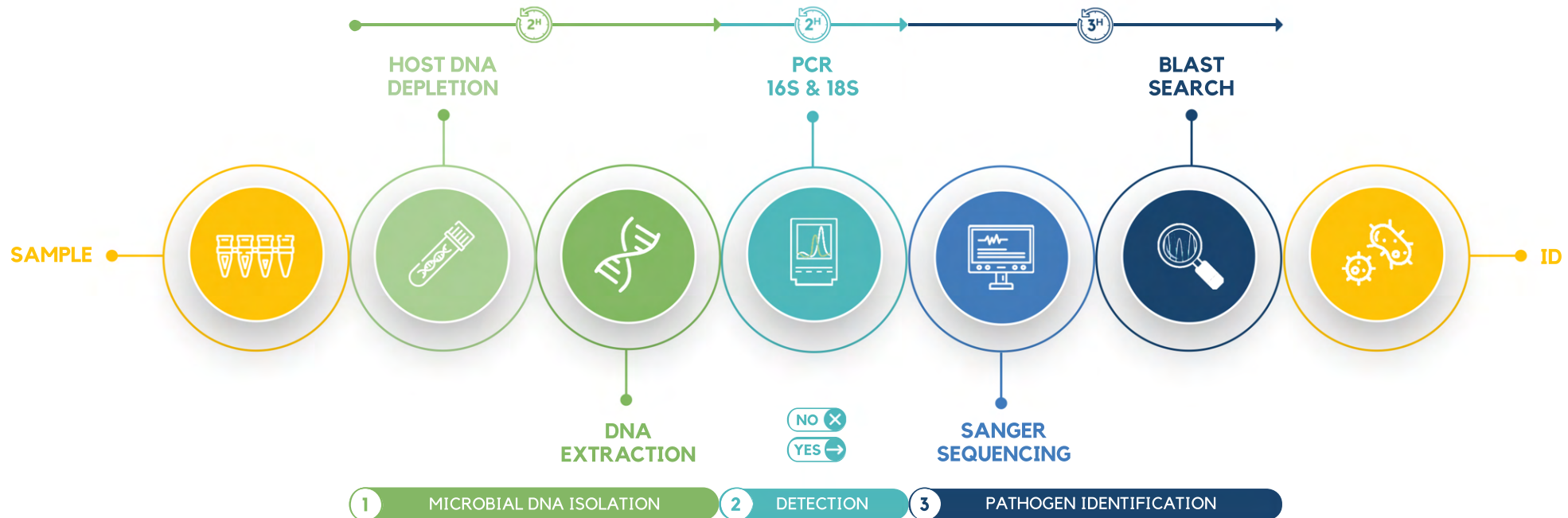
# BROAD-RANGE PCR & PATHOGEN ID

Molzym's Molecular Diagnostic Test (MMDx™) is culture-independent and used to identify bacteria and fungi from various sample types in one protocol.

Our CE IVD marked molecular diagnostic solutions are based on a three-step workflow: MolYsis™ human DNA depletion and microbial DNA extraction, followed by 16S and 18S rDNA broad-range PCR, delivering a preliminary result after only 4 hours. Positive amplicons are then submitted to Sanger sequencing and BLAST analysis for pathogen identification.

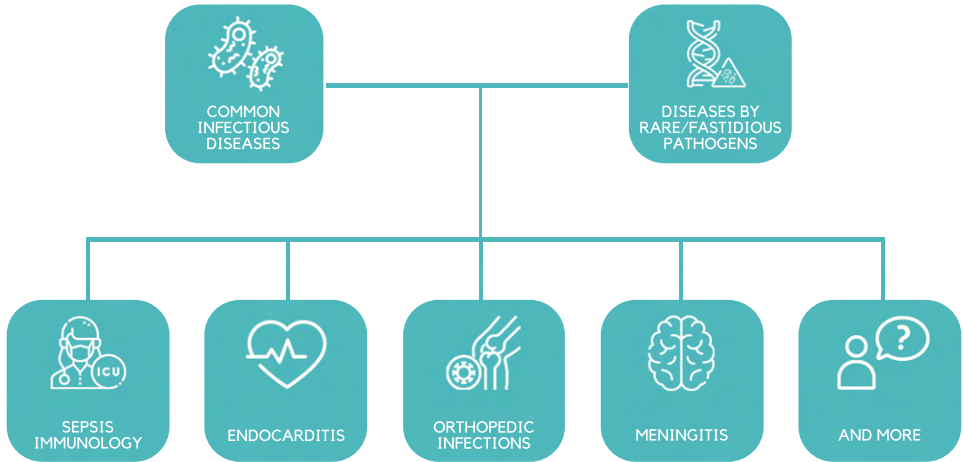
- 1300 Bacteria & fungi identified on species & genus level
- ↓ Reduced time-to-result compared to standard culture
- ↗ Diagnosis of true infections in culture-negative samples
- 🏥 Diagnosis of infections in patients with prior antibiotic therapy or caused by rare or fastidious pathogens

# OUR DIAGNOSTIC WORKFLOW



# TARGETED INFECTIONS

The clinical utility of MMDx™ has been successfully evaluated in numerous clinical trials and for a wide range of applications:



## EMPOWER CLINICAL PATIENT MANAGEMENT

MMDx™ contributes to optimize the treatment of patients with severe infections by increasing the positivity rate of samples and providing accurate results in a significantly shorter time:


### Benefits of **+** results

**x2** Pathogen ID in addition to standard culture<sup>1</sup>

**25%** Of positive results lead to targeted anti-microbial therapy<sup>2</sup>

### Benefits of **-** results

**2nd** Opinion to confirm true culture-negative results

 Therapy discontinuation<sup>2</sup>

<sup>1</sup> Kühn et al., J Clin Microbiol 2011, 49:2919

<sup>2</sup> Marbjerg et al., Diagn Microbiol Infect Dis 2020, 22:115028



MMDx™ automated protocol: **Micro-Dx™**  
 MMDx™ manual protocol: **SepsiTest™-UMD** CE IVD



**UMD-Tubes**



**MolYsis™ Basic 5**  
 MolYsis-SelectNA™*plus*  
 MolYsis™ Complete 5  
 Ultra-Deep Microbiome Prep  
 Ultra-Deep Microbiome Prep10  
 SelectNA™ *plus* device



**Mastermix 16S Complete**  
**Mastermix 18S Complete**  
**Mastermix 16S/18S Dye**  
**MolTaq 16S/18S**  
**Hot MolTaq 16S/18S**  
**DNA-Free Water**



**Eubacterial Sequencing Primers**  
**Panfungal Sequencing Primer**



**SepsiTest™ BLAST**

Note: MMDx™ kits are CE IVD cleared in Europe – MMDx™ is not FDA cleared and not intended for diagnostic use in the US.  
 MolYsis™, MMDx™, SepsiTest™, SelectNA™ and Micro-Dx™ are registered trademarks of Molzym.

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