

the world's smallest real-time isothermal PCR for truly portable molecular testing

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CURRENT APPLICATIONS

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COVID-19 diagnostic [1]

Fast (<45min), highly sensitive (95%) and specific (100%) SARS-CoV-2 detection directly from crude VPM samples, delivering RT-PCR level performance in a portable device with a simple near-patient workflow for true point-of-care testing.

Nutrigenomics [2] (Lactose intolerance)

Rapid personalized genetic testing that detects key LCT gene variant directly from a simple mouth swab or fingertip blood sample, enabling point-of-care diagnosis of lactose intolerance susceptibility and supports informed tailored dietary choices.

Avian sexing

Accurate avian sex determination in psittaciformes using feathers or small blood samples, offering a non-invasive and reliable test that helps breeders optimize pair formation, improving breeding success, and manage aviaries more effectively.

Precision oncology [3] (EGFR mutations)

Rapid detection of actionable EGFR mutations (L858R, E746_A750del) from liquid biopsies, with accuracy comparable to PCR/NGS - enabling fast therapy selection and real-time treatment monitoring at point-of-care.

Your test is running...
 Please do not open the cap and/or remove the assay tube while processing the test.

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Empirical probability

Cloud connectivity:
Secure data transmission & analysis via iOS/Android app for remote monitoring & reporting. Controls up to 4 devices simultaneously

Precision temperature control:
Rapid & stable isothermal control for efficient amplification (e.g., LAMP, RPA)

Real-time fluorescence detection:
Multiplex capability with integrated high-sensitivity optics for immediate results

33 mm
44.5 mm
75.8 mm
58 grams

Salmonella detection

Detection of *Salmonella* spp., *S. Enteritidis* and *S. Typhimurium* within 8h, directly from primary production samples, with a sensitivity of 1 CFU per 25 g - providing results way faster than ISO6579-1 routines (3-5days) and enabling earlier decision-making in food safety workflows.

Legionella detection

Fast (<1 h) detection of *Legionella* spp. and *L. pneumophila* (covering different serogroups) from 500 mL clean-water samples, delivering high sensitivity and specificity and enabling rapid on-site water safety assessment without the delays of culture-based methods (>7 days).

STI screening

Confidential, rapid (<30min) detection of key STIs - including *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Treponema pallidum* and high-risk HPV (16/18) - directly from urine or swab samples. Enables prompt treatment decisions, reducing transmission and supports accessible point-of-care sexual health screening.

AND MANY MORE...

R&D clients & collaborations

Our Doctor Vida[®] technology is also used by a growing network of R&D clients and partners across academia and industry. Together, we create innovative solutions for infectious diseases, environmental monitoring, veterinary, health and agricultural bio-surveillance.

SAQUA
 Iniaov
 Instituto Nacional de Investigação Agrária e Veterinária, I.R.
 CIMO
 Centro de Investigação de Montanha
 CIP
 INTERNATIONAL POTATO CENTER
 ITQB
 UNIVERSIDADE NOVA DE LISBOA

Doctor Vida[®] key features

20 – 60 minutes results
 Rapid sample-to-result time, with minimal sample preparation

Pocket size
 Ultra-portable, fits in a pocket

iOS/Android App (free)
 Intuitive user interface, data management & cloud sync

Real-time visualization
 Monitor amplification curves as they happen

Laboratory-grade Accuracy
 High sensitivity & specificity, validated performance

References
 [1] Doria G, et al. (2022) An isothermal lab-on-phone test for easy molecular diagnosis of SARS-CoV-2 near patients and in less than 1 hour. Int J Infect Dis., 123:1-8. doi: 10.1016/j.ijid.2022.07.042
 [2] Conceição M, et al. (2024) A Genetic Lab-on-Phone Test for Point-of-Care Diagnostic of Lactose Intolerance near Patient and in less than 90 Minutes. J Appl Lab Med., 9(1):4-13. doi: 10.1093/jalm/fad052
 [3] Clemente C, et al. (2025) A rapid Loop-Mediated Isothermal Amplification (LAMP) test for the detection of somatic variants, p.L858R and p.E746_A750del, in non-small cell lung cancer patients: comparison with real-time PCR and NGS. J Precision Med Health Dis., 2:100005. doi: 10.1016/j.premed.2025.100005
 [4] Holz N, et al. (2024) Food Authentication: The Detection of *Arbutus unedo* and *Olea europaea* Leaves as an Admixture of *Oregano* Using LAMP- and Duplex LAMP-Based Test Systems with Lateral-Flow Assays. Agriculture, 14:597. doi: 10.3390/agriculture14040597
 [5] Wax N, et al. (2023) Fast and User-Friendly Detection of Flatfish Species (*Pleuronectes platessa* and *Solea solea*) via Loop-Mediated Isothermal Amplification (LAMP). J Agric Food Chem., 71(40):14795-14805. doi: 10.1021/acs.jafc.3c03917
 [6] Fuentes S, et al. (2025) Evaluation of an ultra-portable pocket-sized device for running Loop mediated isothermal amplification (LAMP) assays for rapid detection of sweetpotato viruses. ViriDx, 2:109. doi: 10.12688/viridix.1161.1

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