



applied biosystems

Integrate, validate, and implement

Human Identification Professional Services

ThermoFisher
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As the world leader in human identification, Thermo Fisher Scientific continues to develop and deliver technologies, services, and solutions to meet the evolving needs of the global forensics community. Our end-to-end workflow solutions include instrumentation, integrated software, human identification kits, laboratory reagents, and consumables, as well as the support of dedicated professionals in field service, field applications, and global technical support and training.

Staying current with the latest technology is challenging and can be overwhelming for forensic science laboratories. For over 10 years, our Human Identification Professional Services (HPS) team has been supporting customers like you in the successful navigation of the integration, validation, and implementation process required to bring new technologies online.

Through a consultative approach to all services offered, the HPS team can work with you to design and implement the right set of solutions for your needs. Whether the need is for a complete turnkey solution, or if you're looking to validate a new component in your workflow, our experienced HPS team can work with you in achieving your goals.





Rely on our experienced team

Our HPS team is comprised of experienced professionals in disciplines needed to address the current and future needs of forensic laboratories globally. These include forensic DNA analysis and interpretation; automation solutions; validation and accreditation; project management; and next-generation sequencing (NGS), which is also known as massively parallel sequencing (MPS).

Whether you're in a casework or reference/database laboratory, our HPS team is here to help you with the implementation of new technologies, as well as the integration of existing technologies in an increasingly complex laboratory environment.

“The rapid deployment of this new, state-of-the-art forensic science services center is allowing us to achieve our goals faster to provide forensic DNA testing in our community. The assistance of Thermo Fisher application experts was instrumental in speeding up the process and enhancing the quality assurance of validation, so we can start processing DNA evidence.”

—Technical leader, crime lab, US



Depend on our high-quality HPS services

Validation is a process by which a procedure is evaluated to determine its efficacy and reliability for forensic casework analysis, and is necessary for laboratories to achieve accreditation. Our validation services are designed and delivered in compliance with all recommended international standards and guidelines, including ISO 17025, the FBI QAS, SWGDAM, NATA, UKAS, KOLAS, NABL, and ASCLD/LAB-ANAB.

Comprehensive services

Our services offer a complete solution—from initial consultation to thorough training/teachback at the conclusion of your project with HPS.

What you can expect from an HPS service:

- Consultation to determine your unique needs
- Charter to define the scope of the project
- Detailed experimental plan
- On-site laboratory network
- Applicable reagents and instrument consumables
- Thorough data analysis
- Comprehensive validation report
- Teachback—lecture and laboratory practical

Training and support

With the adoption and integration of any new technology, all users in the lab must be trained on the instruments, kits, and software; and they must also understand the outcome of the validation studies conducted. To address this need, our validation solutions include training for laboratory analysts at the conclusion of the validation project.

You talk, we listen

We’ve leveraged our 10 years of experience and customer feedback to continually improve and modify our data analysis and validation reports to ensure our customers are receiving the data they need to understand the performance of their new workflow and develop robust standard operating procedures and interpretation guidelines.

To align with regional and global forensic requirements, the following table reflects the scope of a typical validation service.

Validation study
Minimum threshold and contamination study
Precision and reproducibility study
Sensitivity and stochastic study
Accuracy study (NIST sample)
Assessment of non-allelic peaks
Mixture study
Known and nonprobative sample study
Stutter study

Choose from flexible solutions

The HPS team offers an extensive portfolio of services to meet the needs of your laboratory, including:

- Validation and performance checks of all of our products
- NGS validations and implementation support
- Turnkey solutions
- Robotic systems and LIMS integration/validation
- Lab relocation
- Y-screen validation
- Probabilistic genotyping implementation support
- SOP development
- Accreditation support
- Operational efficiency programs
- Advanced HID training

New technologies and workflow improvements are being implemented and validated worldwide. The HPS team recognizes the evolution of the forensic DNA laboratory and continues to develop new services to meet those needs. The latest additions to our service portfolio include automation solutions, NGS, probabilistic genotyping support, and the Y-screen assay.



Automation selection and implementation

Labs worldwide are increasing the throughput of samples through their casework and database workflows, which is increasing the demand for robotic implementations. However, many labs find it difficult to identify the right robotic system to use and to effectively validate, integrate, and implement the system.

Our HPS team has extensive expertise in designing and implementing robotic systems from a variety of vendors. From deck layout and workflow scripting to integrating with new or existing LIMS systems, the HPS team can partner with you in identifying and implementing the appropriate robotic system for you.

NGS integration

Adopting NGS for forensic DNA analysis is simpler than ever when you partner with our HPS team. Our experienced team will help you integrate an NGS solution into your current forensic analysis workflow so you can get more information from your most challenging samples.

Probabilistic genotyping implementation support

As laboratories move toward more advanced statistical methods for interpreting mixtures, the HPS team moves with you. We now offer a probabilistic genotyping implementation support service providing a total sample preparation package to help save you months of hands-on laboratory work.

Y-screen validation

Streamline your sexual assault kit processing by quickly screening for male DNA with our Y-screen assay. The HPS team will help you determine how this new time-saving assay will best fit into your current screening workflow.

The HPS Laboratory Development Program

“There are advantages of having an outside agency conduct the validation for us—opportunities for gaining a different perspective and knowledge in addition to freeing up lab personnel for casework rather than taking them out for technical/validation aspects of the work.”

—Forensic scientist, Canada



Our Laboratory Development Program (LDP) was designed to meet the unique needs of our global customers. The LDP is a new option for long-term partnership with the HPS team that offers a simple, step-wise solution for laboratories just starting out or that just need help in certain areas of implementation. With the LDP, you can have total confidence in a plan customized specifically for you to help you validate, get online, and prepare for accreditation.

We help you select the appropriate module to get your lab online faster

Select from the following customizable modules:



Get support wherever you are

Our HPS team has developed and conducted more than 700 validation and/or integration projects in 30 countries worldwide. The team is available to work with customers nearly everywhere around the world.

Supporting laboratories globally:

- Australia
- Belgium
- Brazil
- Brunei
- Canada
- Chile
- Colombia
- Germany
- India
- Indonesia
- Italy
- Japan
- Libya
- Malaysia
- Mexico
- Myanmar
- Namibia
- Philippines
- Poland
- Singapore
- South Africa
- South Korea
- Spain
- Switzerland
- Taiwan
- Thailand
- Turkey
- UAE
- United Kingdom
- United States



Hear it from your peers

We routinely survey customers following the completion of projects to help us continually improve our services—and to identify additional capabilities needed to address unmet needs.



More than 98% of surveyed customers said they would recommend the HPS team to a colleague.



Over 40% of customers have used the services of the HPS team more than once.

“I really understand the importance of validation. Teachback was very valuable for me. Data analysis was very impressive.”

—Section chief, forensic DNA laboratory, Japan



Find out more at thermofisher.com/hps

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