

Human identification

Partnering for success with HPS

Integrate, validate, and implement with Human Identification Professional Services (HPS)

Natasha H. Poe has been the DNA technical leader for the forensics laboratory division of the St. Tammany Parish Coroner's Office (STPCO) in Louisiana for over 16 years. During her tenure, she has grown the laboratory capability both by adding staff and by keeping up with the latest DNA workflow technologies from Thermo Fisher Scientific. Poe sat down with us to share how her partnership with the Thermo Fisher HPS team has impacted her laboratory.

Thermo Fisher: Will you please tell us about yourself and your forensic program?

Poe: I've been in forensic science for 27 years. For the first 11 of those years, I worked in several forensic science disciplines, including serology at the Louisiana State Police Crime Lab. In the early 2000s, our parish received the funds needed to launch the STPCO laboratory from scratch. This huge undertaking was complicated further by the Hurricane Katrina disaster, delaying our start by about a year and drastically condensing the timeline for getting the lab up and running.

After we had our STPCO team in place, we only had a few months to purchase and validate instruments, train the team, and bring the entire DNA workflow online. We set up a casework workflow that included many Applied Biosystems™ HID instruments and chemistries, and we engaged with HPS to validate our Applied Biosystems™ 3130 Genetic Analyzers.

STPCO has grown and now supports eight agencies. It includes a team of five DNA analysts and one DNA technician, and it processes around 15–20 cases per month. It may not sound like a lot of cases, but when you consider that each analyst works a case from screening to interpretation and that each case undergoes a peer review, we stay very busy.



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Considering all that, I'm also especially proud to say that we're able to maintain a zero-case backlog. Because we are a small agency, we must remain focused on our caseload, which means we depend on HPS for performance checks, validations, and training. Services like HPS validations help us keep a backlog at bay and keep our workflow current with the latest instruments and chemistries.

What are some of the challenges you face in your lab?

The biggest challenge is that evidence sample types have changed over time. Many criminals have gotten smarter. Some go to jail, learn from other criminals, and then when they are released, they may commit more serious crimes and leave behind less evidence.

We've moved from processing blood stain samples to processing trace DNA. Forensic labs must keep one step ahead of these smarter criminals. That means staying abreast of the latest technology and chemistries and working closely with our partners to make sure our workflow is optimized to get the best possible profiles from the forensic evidence we receive. Our relationship with other labs and Thermo Fisher is crucial in staying current.

What services has HPS provided you over the years?

HPS has provided our lab with many validations and performance checks on various products over the years. These include Applied Biosystems™ Identifiler™, Yfiler™, Yfiler™ Plus, MiniFiler™, GlobalFiler™, Profiler™ Plus, CoFiler™, Quantifiler™ Trio, ProFlex™, 3130, 7500, 9700, and 3500xL products, as well as Applied Biosystems™ HID Real-Time PCR Analysis Software, data collection software, and GeneMapper™ *ID-X* software.



Will you please describe your experience working with HPS for validation?

Naturally, as forensic science has grown through the years, so too has our lab—and HPS, for that matter. Because of this, I've had the luxury of working with many different HPS staff members, technical project managers, validation applications specialists, and field applications specialists.

The HPS team representatives typically have experience with DNA crime labs, so working with the HPS team is like working with our peers. They are a reliable source for getting questions answered and having discussions about laboratory performance. Honestly, one of the best parts of our long-term relationship with HPS is the opportunity to work with experienced and knowledgeable specialists that we can learn from.

The experience with others on the HPS team has been wonderful, even though they try to keep their time in our lab short and sweet. They are always very nice, flexible, and knowledgeable.

When the HPS team arrives at our site, they know what samples they are going to run, and they have communicated about which resources they will need and which they will provide themselves. In addition, they have Quality Assurance Standard knowledge and they know what's expected and what's required for audits. It also helps that HPS has the validation timeline and scheduling down to a science.

The growth of the HPS team, over time, has resulted in additional services and increased resources with the same personal touch. So, when an HPS representative encounters a challenge while at our lab, they are able to escalate the issue and remedy it within a day or so. The speed at which HPS operates really has benefited our lab.

What's the best part of working with HPS?

Aside from not having to interrupt our work to do validations? If I had to pick just one thing about HPS services that stands out, it would be the camaraderie between the HPS team and their customer labs—it really sets them apart. They've seen and experienced things in working with other laboratories that I haven't, and they use that knowledge to improve our workflow in ways that I wouldn't have thought about otherwise.

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Oh, and Thermo Fisher stands behind its products. When it comes down to it, and we are being pressured by outside influences, the HPS team has always stood behind its services and deliverables. An example is when an HPS team member helped me understand my validation data and construct talking points for a response to an audit finding related to the analytical thresholds that I had chosen for analysis. The HPS representative walked me through the threshold findings from their earlier validation report, which greatly improved my confidence in defending my choices during the audit discussions.

HPS has my back, and their consistent dedication to supporting forensic DNA workflows has proven to be invaluable.

Has HPS provided training for your laboratory?

Yes. We have engaged HPS to train our team and provide validation teachback training because we do not have the extra resources required to develop and present training on our own. The HPS team's training helps our staff stay abreast of the latest forensic technologies and validation findings. It was evident that the HPS team put a lot of effort into their training content to ensure it was tailored and delivered to meet our specific needs. We especially loved our most recent teachback, not only because of its educational content but because it was fun and engaging.

Why did you choose to work with HPS? And why do you continue to do so?

When we initially set up the lab, we only had a few months to purchase instruments, validate those instruments, train the team, and bring the entire DNA workflow online.

So, STPCO approached HPS about assisting in the huge undertaking of installing and validating our casework workflow with a very short turnaround. We were so impressed with the quality of service and training from the HPS team and their commitment, that we continue to use them. HPS has been our workflow partner for over 15 years now.

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