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MED TECH OUTLOOK

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TOP PATHOLOGY SOLUTIONS PROVIDER 2025

ASP HEALTH

REINVENTING POINT-OF-CARE PATHOLOGY

John W. Hart,
President and CEO

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ASP Health

This award is in recognition of **ASP Health's** stellar reputation and trust among customers and industry peers, evident in the numerous nominations we received from our subscribers. **ASP Health** emerged as the **Top Pathology Solutions Provider 2025** after an exhaustive evaluation by an expert panel of C-level executives, industry thought leaders, and our editorial board.

Awarded By

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REINVENTING POINT-OF-CARE PATHOLOGY

Every second counts during a potentially life-saving diagnosis. Yet, pathology remains trapped in outdated workflows, where critical findings frequently arrive too late.

Specimen slides pile up in busy hospitals or distant labs, slowing down processing and increasing the patient risk. Smears dry unevenly due to variability in manual slide preparation and clinicians often struggle to keep pace with patient care delivery using handwritten logs. This is the reality of pathology as it exists in most hospitals today—fragmented, laborious and inconsistent for widespread adoption.

ASP Health is pioneering a new era of real-time, point-of-care pathology in an industry overdue for transformation.

Challenging the status quo, it blends human insight with cutting-edge technology to ensure faster and more accurate diagnoses and peace of mind for patients. ASP Health's pathology suite comprises a triad of innovative platforms, ASP Prep™, ASP View™ and ASP Assist™, that bring speed, precision and standardization to the point-of-care setting.

"Our platforms drive a wave of transformation in diagnostic processes, enabling precise, real-time evaluations," says Hariharan Subramanian, Chief Operating Officer.


Hariharan Subramanian, Chief Operating Officer

The trailblazing platforms revamp traditional manual workflows with advanced digital technology, yielding savings of several hundred dollars per case for hospitals. With instant sample adequacy feedback, they reduce repeat passes and eliminate unnecessary patient recalls. ASP Health helps hospitals stay ahead of the curve, unlock superior outcomes, and improve patient care.

ASP Prep™ is a mobile, fully automated sample-preparation instrument featuring a simple, intuitive user interface for slide staining and preparation. Once the slides are ready, they are placed on ASP View™, a robotic microscope that can be controlled remotely. Equipped with automated X, Y, and Z axes as well as seamless image magnifications, it ensures remote navigation and rapid, high-resolution imaging. ASP Assist™ applies cutting-edge AI to simplify and streamline remote slide viewing and aid in accurate assessment by identifying diagnostically relevant cells. ASP Health has trained its models with over one million image tiles generated by ASP Prep™.

"Our specialty is a complete end-to-end solution for preparing and viewing cell slides, enhanced by software that quickly identifies target cells to expedite the diagnostic decision-making process," says John W. Hart, president and CEO.

The platforms can be used for a host of applications, including cancer screening, surgical specimen collection, and veterinary medicine.

Rapid on-site evaluation (ROSE) is the first breakthrough use case.

Democratizing ROSE

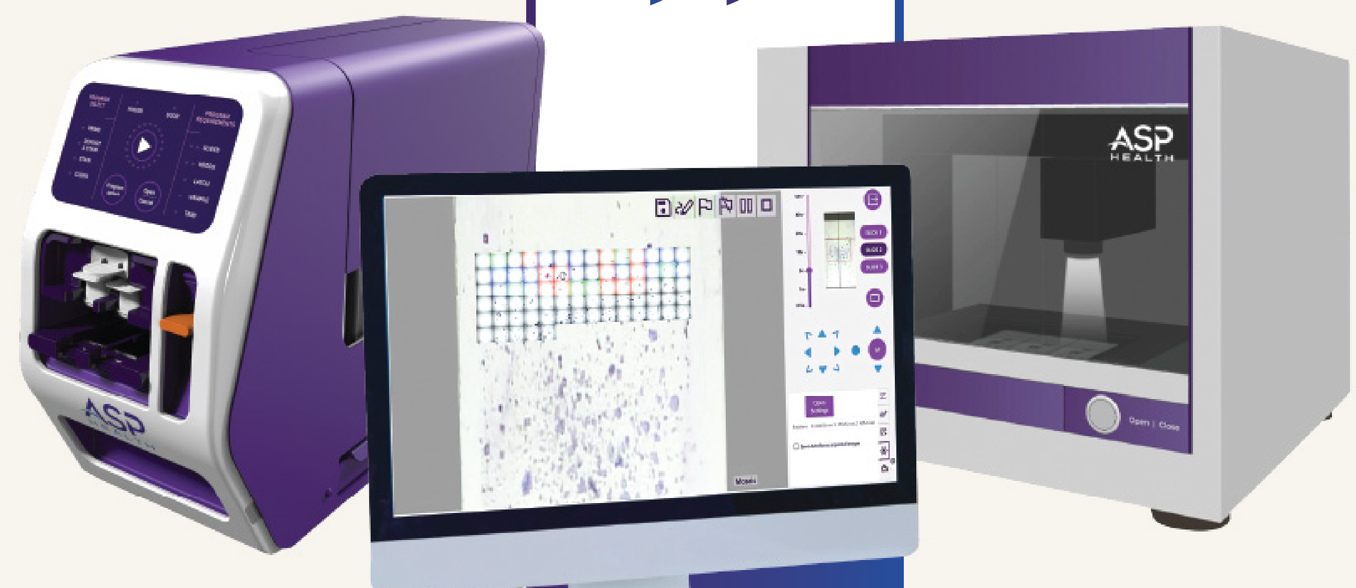
ROSE has emerged as the standard for fine-needle aspiration (FNA) biopsy. But its adoption remains limited due to the manual nature of the procedure and a lack of trained professionals. Hiring full-time cytopathologists is not affordable for many hospitals, leading to delays and increased costs.

> AI-powered assistance acts as an extra set of eyes, ensuring no critical details are missed and significantly reducing the time required for diagnosis

In a bustling pathology lab, cytotechnologists become jugglers of time and precision. Each FNA sample is smeared across a glass slide, manually dried and subject to multiple rounds of staining. It then comes under a microscope, where every cellular detail matters. With new samples arriving in bulk, this manual ballet repeats endlessly, and the pressure on cytotechnologists to work quickly and accurately in these situations can impact the performance of even the most skilled evaluation.

In larger clinical settings with multiple cytotechnologists, a lack of standardized methods for manual sample preparation and specimen adequacy assessment can lead to inconsistencies, making ROSE error-prone.

ASP Health recognized the untapped power of automation in streamlining ROSE from a niche, manual process into a scalable, life-saving standard – a bold step that now serves as an industry pioneer. By automating and democratizing



ROSE, it is leading a quiet revolution that elevates outcomes, changing the future of pathology.

The three platforms transform into ROSE Prep™, ROSE View™ and ROSE Assist™, transitioning ROSE from a specialist-dependent procedure into an effective and scalable solution for any hospital or alternate care site.

Immediate Care Delivery with ROSE Automation

"'Enhance your ROSE' is not just a tagline at ASP Health; it's a promise" says Dr. Subramanian.

The platforms enable doctors to quickly determine sample adequacy, leading to the detection of cancer in its treatable stages, and to accelerate decision-making to save more lives. Even if a cytotechnologist is not in the procedure room, a nurse or technician can prepare the samples for ROSE and enable remote ROSE support with minimal training. This frees up the cytotechnologist for higher-value tasks. ROSE Prep™ standardizes the procedure. It can be brought into the operating room to rapidly produce ready-to-analyze slides, driving adoption across hospitals both large and small.

Consistent sample quality leading to improved sample adequacy are the hallmarks of ROSE Prep™. A single, compact unit automates sample deposition and staining, providing high-quality slides and streamlining sample analysis. Stained specimen slides are ready in just 50 seconds.

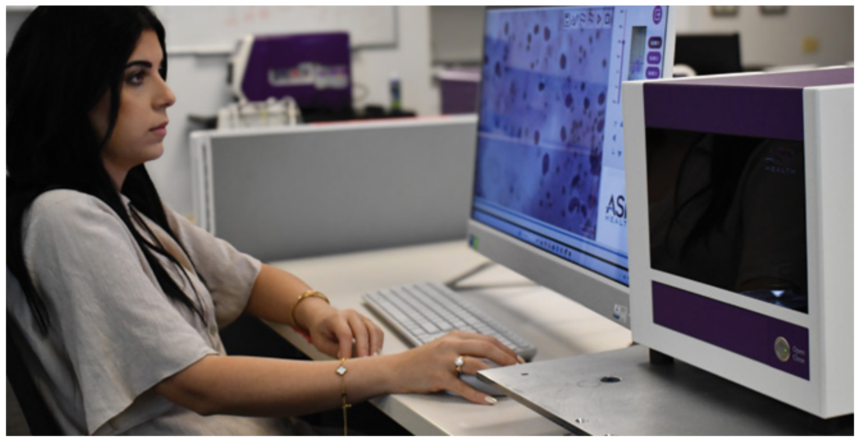
Equipped with a specially designed ASP Vial™, ROSE Prep™ ensures enough sample is collected to complete the downstream molecular analysis. ASP Vial™ allows the entire specimen, from single or multiple passes, to be collected in one container. One to two sample drops are transferred into the designated consumable and inserted into the ROSE Prep™ instrument, leaving the remainder for downstream processing.

Conventional methods can cause clotting and splattering when blood is transferred onto a glass slide immediately after needle withdrawal. In contrast, ASP Vial™ provides for the sample to be fully homogenized, preserving the integrity and quantity of the sample for accurate analysis.

The ROSE Prep™ system ensures contaminant-free sample preparation. Processing a second slide in the same stain container can cause cross-contamination. ASP Health's proprietary technique means a fresh slide for every stain.

ROSE Assist™ augments the efficiency of ROSE View™. This AI-powered software works hand in hand with ROSE View™ to make telepathology smooth and fast. Combined, the future-proofed infrastructure enables live, high-resolution telepathology, which eliminates slide shipping and travel delays.

Studies report that AI-assisted cytology improves sensitivity and specificity by 5 to 10 percent and significantly reduces interobserver variability, which is key for consistent ROSE adequacy assessments.



"AI-powered assistance acts as an extra set of eyes, ensuring no critical details are missed and significantly reducing the time required for diagnosis," says Dr. Subramanian.

By centralizing cytopathologist review via remote access, hospitals don't need a specialist on-site for every case, or for when ROSE volume spikes. Unlike older remote microscopes that rely on a clunky keyboard and mouse setup, ROSE Assist™ uses smart machine learning to rapidly identify diagnostically relevant cells. It automatically highlights nucleated cells in real time, enabling swift, detailed analysis.

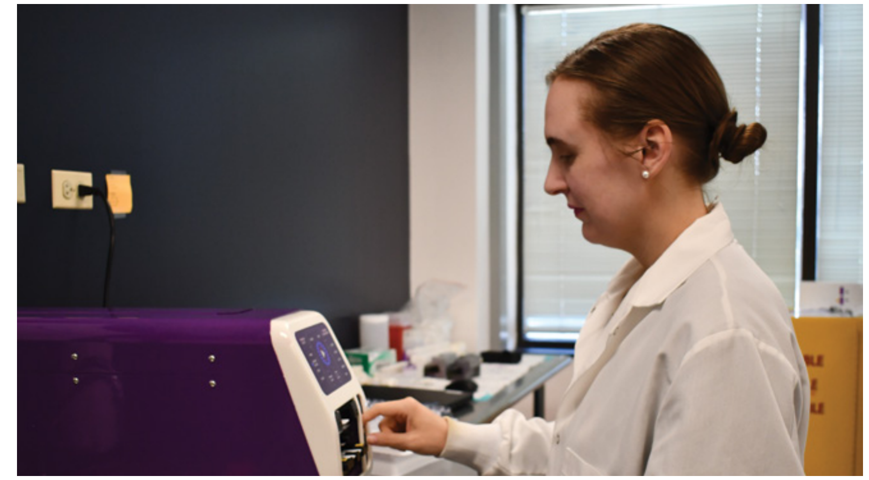
Moving Cancer Diagnostics from Bench to Bedside

Users can tap into the advantages of ROSE View™ for timely diagnostic evaluations after seamless and successful specimen preparation using ROSE Prep™. The fully robotic microscope is easy to operate and can be accessed remotely via the internet, allowing cytopathologists to assess samples from virtually anywhere. It's fast, reliable and clinically proven, accelerating timely decision-making.

Once a nurse or lab technician loads slides prepared by ROSE Prep™ into ROSE View™, images and metadata are auto-transmitted to the pathologist's workstation. This eliminates transcription errors and manual handoffs. Experts can examine the sample and provide immediate feedback, minimizing delays.

Unlocking Faster, More Confident Clinical Decisions

ASP Health's platforms have propelled numerous hospitals toward digitalized point-of-care pathology.



Mosaic Life Care's Interventional Pulmonology, based in St. Joseph, MO, practice faced significant challenges in bronchoscopy procedures. With pathology resources stretched thin, performing ROSE was highly challenging. The pulmonologist struggled to collect sufficient samples for the pathology lab and downstream molecular analysis.

ASP Health implemented a fully automated ROSE Prep™ system and microscope for remote viewing in Mosaic's bronchoscopy suite. With improved slide quality, the adequacy feedback was reduced from 15 minutes to less than five. Remote viewing helped the client's pathology team quickly evaluate ROSE specimen slides. This enabled real-time feedback on challenging and smaller nodules, leading to more informed diagnostic decisions.

In a testimonial, Gautam Balakrishnan, MD, Interventional Pulmonologist, Mosaic Life Care, stated, "ASP Health helped us solve a common problem faced by many community hospitals —the inability to perform ROSE. The ROSE Prep™ system allows us to automatically prepare high-quality specimen slides and transmit real-time feedback with telepathology."

The Beginning Chapters

ASP Health began its journey with a clear mission to accelerate and simplify cancer screening through smarter, more accessible diagnostic technology. Recognizing that many cancers go undetected until they reach advanced stages, the team envisioned a transformative approach to early detection. Dr. Subramanian, a scientist with a PhD from Northwestern University, chose to veer off the traditional academic path and channel his passion into developing impactful solutions for clinical practices. He and his colleagues sought to develop a simple, cell-based test, similar to a routine cholesterol screening or Pap smear that could be performed in a primary care physician's office.

> "Our platforms drive a wave of transformation in diagnostic processes, enabling precise, real-time evaluations"

The team set out to create powerful early-detection tests for lung and pancreatic cancers. This led to the creation of NanoCytomics, a company dedicated to accelerating the development and commercialization of innovative cancer detection technology.

Obtaining consistent, high-quality cell samples was a major hurdle during research. Cheek cells were analyzed for subtle color changes linked to lung cancer. But the method required slide precision beyond traditional capabilities. To meet this need, the team pursued the creation of a new, reliable method for specimen slide preparation.

A breakthrough came when one of the engineers observed spray mechanisms used for precision painting. This sparked the idea for a proprietary spray-based technique for evenly distributing cells onto glass slides. Through engineering ingenuity and experimentation, they created the proprietary and innovative sample preparation method.

The spray-based method grabbed the attention of prominent pathologists and cytopathologists from Johns Hopkins University, Memorial Sloan Kettering Cancer Center and Yale University. This led to exploring its potential beyond cancer screening, with its first application in ROSE, leading to the formation of ASP Health.

"What began as a journey of developing innovative specimen collection and preparation techniques culminated in a trailblazing success story for digitalizing point-of-care pathology," says Hart.

Next-Gen Point-of-Care Pathology

As healthcare expands towards coupling point-of-care with decentralized diagnostics, ASP Health's endeavors are unlocking unprecedented growth opportunities. By harnessing advanced AI, it aims to elevate early detection across multiple cancer types. It is actively forging partnerships with prominent medical organizations to accelerate ROSE's adoption and broaden its life-saving reach.

Continuing to push the boundaries of innovation, the company envisions ROSE evolving into a dynamic, real-time diagnostic assistant, empowering hospitals to expedite clinical decisions and deliver same-day tumor diagnosis and treatment.

At the forefront of a transformative shift, ASP Health is committed to making cutting-edge diagnostic tools accessible to every healthcare facility, ultimately improving patient outcomes worldwide. By elevating patient care, ASP Health is not just responding to the future of pathology. It is defining it.

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