



James Buchanan Duke

At Duke University
Health System,
Sebia Electrophoresis "Rules"

Janet Mueller is here to tell you that even a prestigious, world-renowned medical institution isn't immune to the same pains afflicting hospitals everywhere.

Like those nagging issues of efficiency, productivity and cost, for instance.

"We're facing the same economic pressures as everyone else," says Mueller MT(ASCP), technical director of outpatient labs for Duke University Hospital in Durham, North Carolina. "Costs are escalating, so we always want to be more productive and maximize our work capacity. Yet staffing is scarce. We needed to find ways to improve our work processes to allow for greater cost- and people-efficiencies."

Given that Duke's Morris Building Clinical Lab had not upgraded its electrophoresis process in ten years, Mueller and her colleagues were enthusiastic about the huge potential afforded by new automation. They

compared the Sebia HYDRASYS[®] to other similar solutions, and the HYDRASYS proved to be the best choice to meet their needs.

The instrument, introduced in 1999, automates the entire electrophoresis process, from sample application to migration to incubation to staining, destaining and drying.

At first sight, it was the superb resolution of the Sebia gels that piqued the team's interest — but what really struck Mueller was the technical knowledge of Sebia's personnel. "In addition to an instrument, we also needed a partner who could help us advance our lab with new information and insight," she says. "Sebia has proven to be very helpful in this area."

On a day to day level, the HYDRASYS saves technicians time on routine processing —

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Customer Focus

freeing them up for other tasks such as paperwork. "We've been getting a higher number of Immunofixation orders since the opening of our myeloma clinic, and I'm not sure we'd be able to handle the increased volume without this instrument," says Lorri Givens, MT(ASCP), senior medical technologist. She particularly likes the 'walkaway' functionality of the HYDRASYS, which has eliminated tedious manual steps such as blotting and washing.

Mueller notes that because the instrument standardizes reagent application, the process is less tech-dependent and therefore more consistent from plate to plate. "The real value of our techs is their ability to interpret results — and now they can focus their energies on that endeavor instead of worrying about test preparation." According to medical technologist Michele Jones, MT(ASCP), the HYDRASYS has enabled the lab to handle as many as four times the number of gels that could be done in the manual days. "Before, we could process maybe five gels on a good day," she recalls. "Now we typically process 12...and have done as many as 22 in a single day, which is outstanding."

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While the most pressing concern for the lab was to conserve precious tech time, the HYDRASYS also made it possible to combine the phoresing and staining workstations for more effective use of space. Eventually, the lab will combine hemoglobins and protein electrophoresis onto one system, another attractive feature of the instrument.

Mueller's intuition about Sebia hasn't failed her; the company's new state-of-the-art digital imaging system, the Phoresis, will enable the lab to achieve future goals — such as better physician access to results. "This instrument is exciting news because it will eventually allow us to deliver results to doctors via modem for remote interpretation," she explains. "The system offers huge potential." Designed as a flatbed scanner, the Phoresis allows scanning and storage of electrophoresis results from protein, hemoglobins, isoenzymes and all types of immunofixation assays — processing as many as 324 samples in 4 minutes. With it, Duke will be able to store and recall up to 100,000 electrophoresis curves and results and 4,000 immunofixations on a single system.



"Sebia is really committed to the furthering developments in electronic transfer," Mueller says. "This is exactly the kind of thinking that will help us increase our business successfully and profitably in the future."

About Duke University Health System

Though Duke University Health System is relatively new, Duke University Hospital is rooted in 70 years of tradition of preeminence in care delivery, research and training. Formed in 1998 to expand the boundaries of Duke University Hospital, the Duke University Health System also comprises Durham Regional Hospital, Raleigh Community Hospital, Triangle Hospice and St. Joseph of the Pines Home Care. The tradition for excellence continues, as Duke University Health Systems remains steadfastly dedicated to continued leadership in health care and academic medicine.

Duke University Hospital and the associated medical school ranked among the nation's top 10 in U.S. News & World Report, with special accolades bestowed for cardiology, cancer, urology, orthopedics, geriatrics, women's health, ophthalmology and pediatrics, among other specialties.

