MAJOR BREAKTHROUGH
IN NEWBORN SCREENING

CAMAG
DBS-MS 500

FULLY AUTOMATED DRIED BLOOD SPOT EXTRACTION SYSTEM

NEW EXTENDED NEWBORN SCREENING PANEL FOR MASS SPECTROMETRY DETECTION

- High throughput analysis of up to 500 DBS cards per run
- Integrated optical card recognition and barcode reading module
- Automated internal standard application module
- Unique extraction module with wash station to eliminate carry-over
- Online coupling to analysis system (LC-MS, MS or Sample Collector)
- Full control through Chronos software

SWISS MADE

CAMAG®

MARKERS FOR CONGENITAL ADRENAL HYPERPLASIA AND CONGENITAL HYPOTHYROIDISM ADDED TO THE NEWBORN SCREENING MASS SPECTROMETRY PANEL

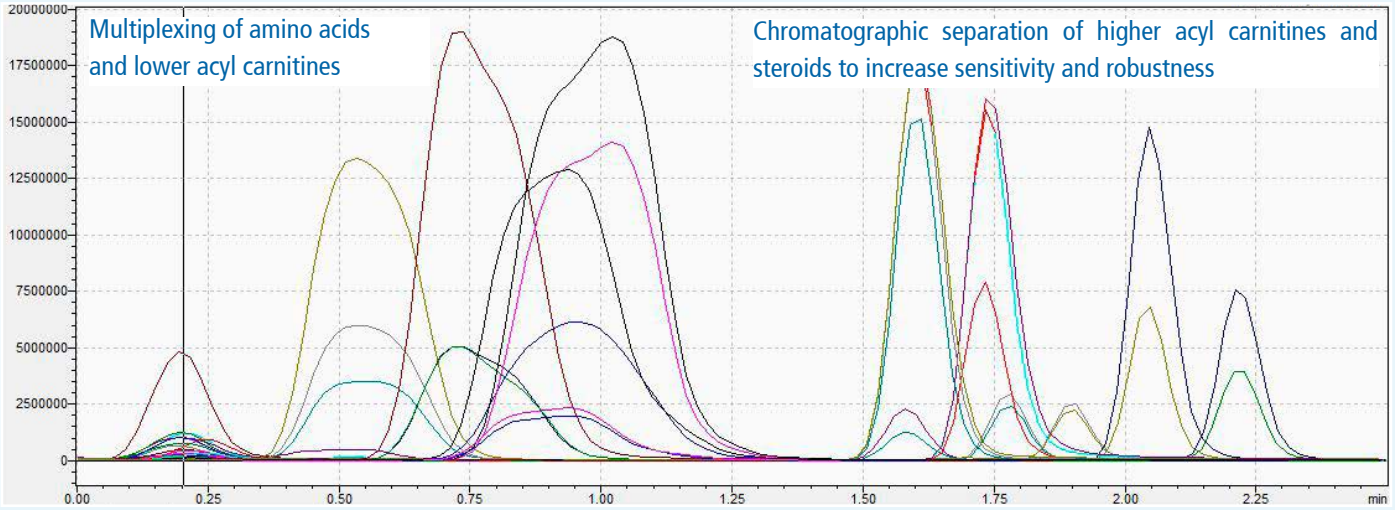
Newborn screening is a public health program provided by most of the countries around the world aimed at screening newborns for a list of serious genetic and metabolic disorders. Early diagnosis of those conditions can help prevent their further development which untreated often results in brain damage, organ damage, and even death. A routine neonatal screening procedure requires that a health professional takes a few drops of blood from the baby's heel, applies them onto a filter paper and sends such prepared samples to a laboratory for a number of analytical tests.

The sample preparation taking place before analysis may be labor-intensive, time-consuming and not very precise due to carry-over when processed with traditional "punch-and-elute" methodology. Application of the CAMAG DBS-MS 500 direct sample elution system offers fast, efficient and highly reliable sample handling.

Moreover, this fully automated system eliminates the need for any manual intervention between samples.

The new CAMAG extended NBS screening panel for mass spectrometry detection covers:

- Complete list of fatty acid oxidation and organic acid disorders
- Amino acid disorders
- A new steroid panel for the screening of further inborn errors, providing an alternative to currently available biological assays
- Analysis within less than 2.5 minutes per sample



CAMAG developed a new extended screening panel for the mass spectrometry application in collaboration with the Swiss newborn screening center and the University of Applied Sciences Northwestern Switzerland. In addition to the complete coverage of all amino acids and acyl carnitines of interest, an additional steroid panel was integrated to allow a screening for congenital adrenal hyperplasia and congenital hypothyroidism, currently determined by two separate biological assays. The CAMAG newborn screening panel is therefore not only reducing the total costs, analysis time and labor work, it also provides the foundation of good laboratory practice (GLP) by an integrated documentation system. The dried blood spots are directly eluted from the filter cards without any punching and are therefore traceable at all time during the analysis process. Each card is documented prior and after analysis to ensure highest standards of quality and documentation.

* Data provided by Dr. Ralph Fingerhut, Children Hospital Zürich Switzerland

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