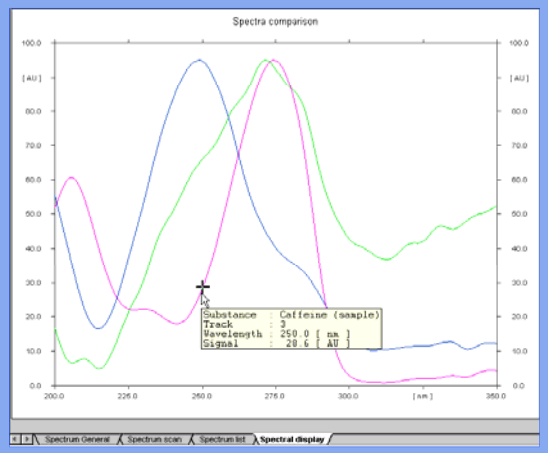
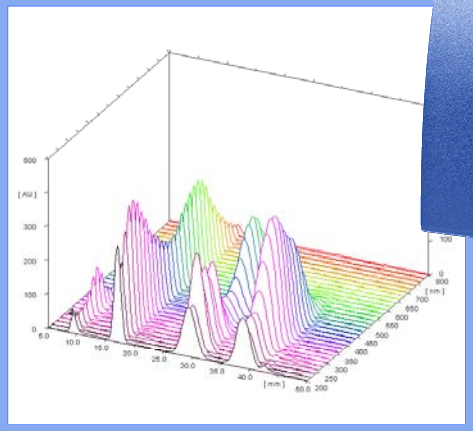
News from CAMAG, Club de CCM

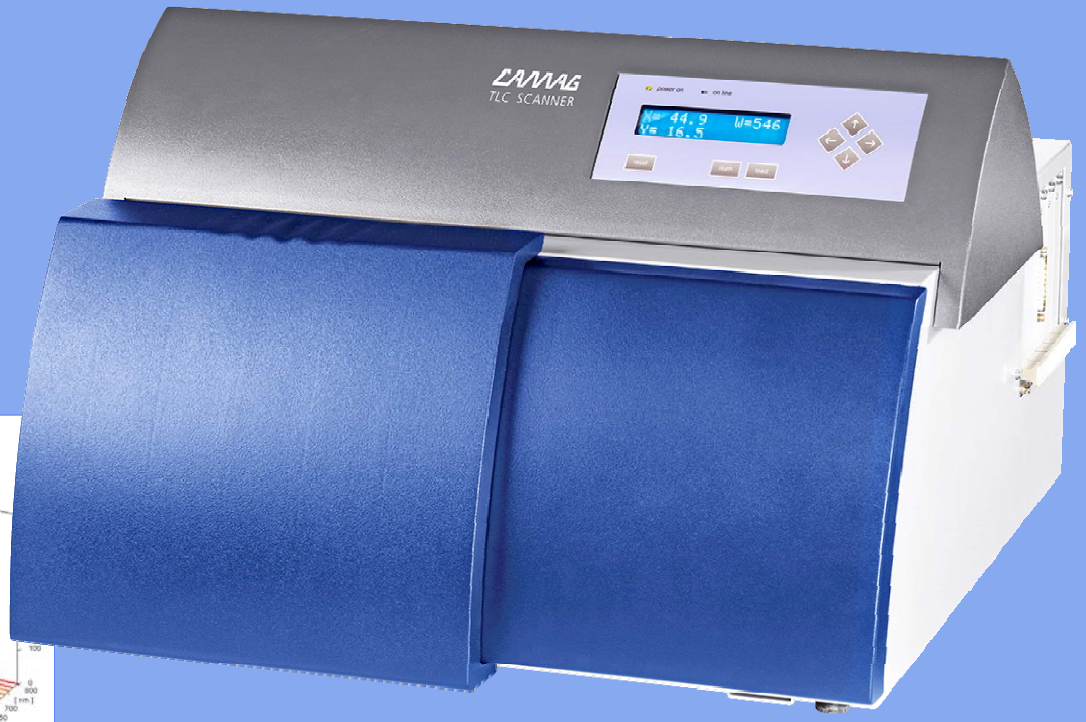
Raphael Vizzini

Area Sales Manager, Europe, Middle East, Africa

New TLC Scanner



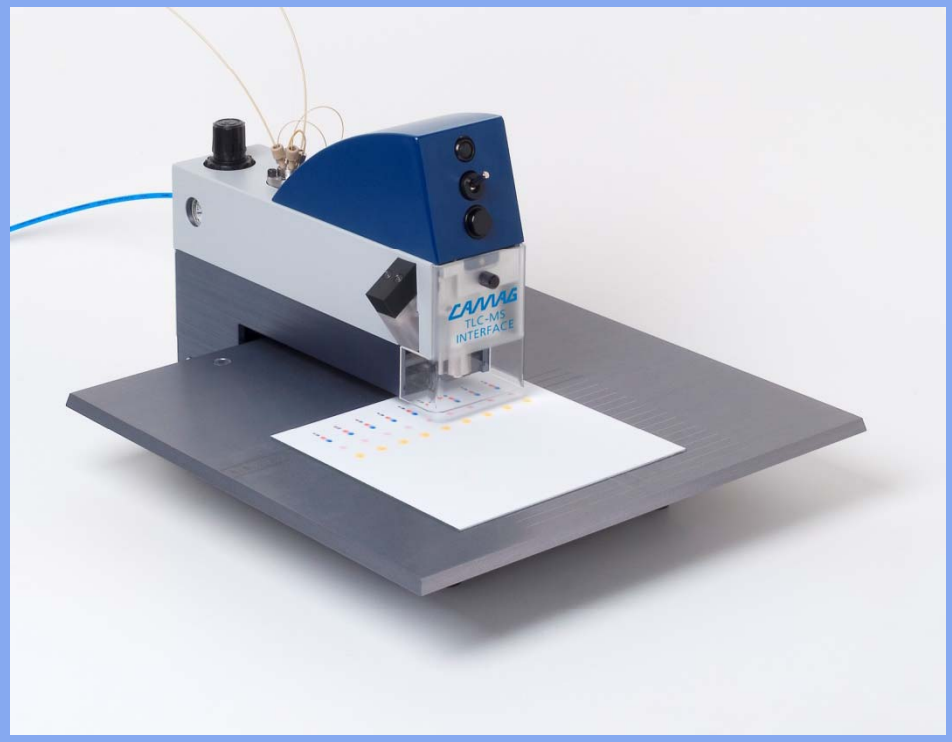




New TLC Scanner

- Extended spectral range 190nm-900nm
- Improved signal to noise ratio
- Up to 36 track with up to 100 substances per track
- Complies with the rules of GMP/GLP and 21 CFR Part 11
- Small footprint
- Fully automatic scanning
- Re-designed for user comfort

The CAMAG TLC-MS Interface



Option big table 40x40 cm

Options

- 022.8410 big table 40x40 cm
- 022.8415 Plunger for circular zone 4mm diameter
- **022.8416 4mm round circular head for preparative plates up to 0.5mm layer**
- 022.8418 Oval shaped plunger for band application
- **022.8419 Elution Head for DBS cards**

Direct Analysis of Dried Blood Spots (DBS) using CAMAG TLC-MS:

Current Technique

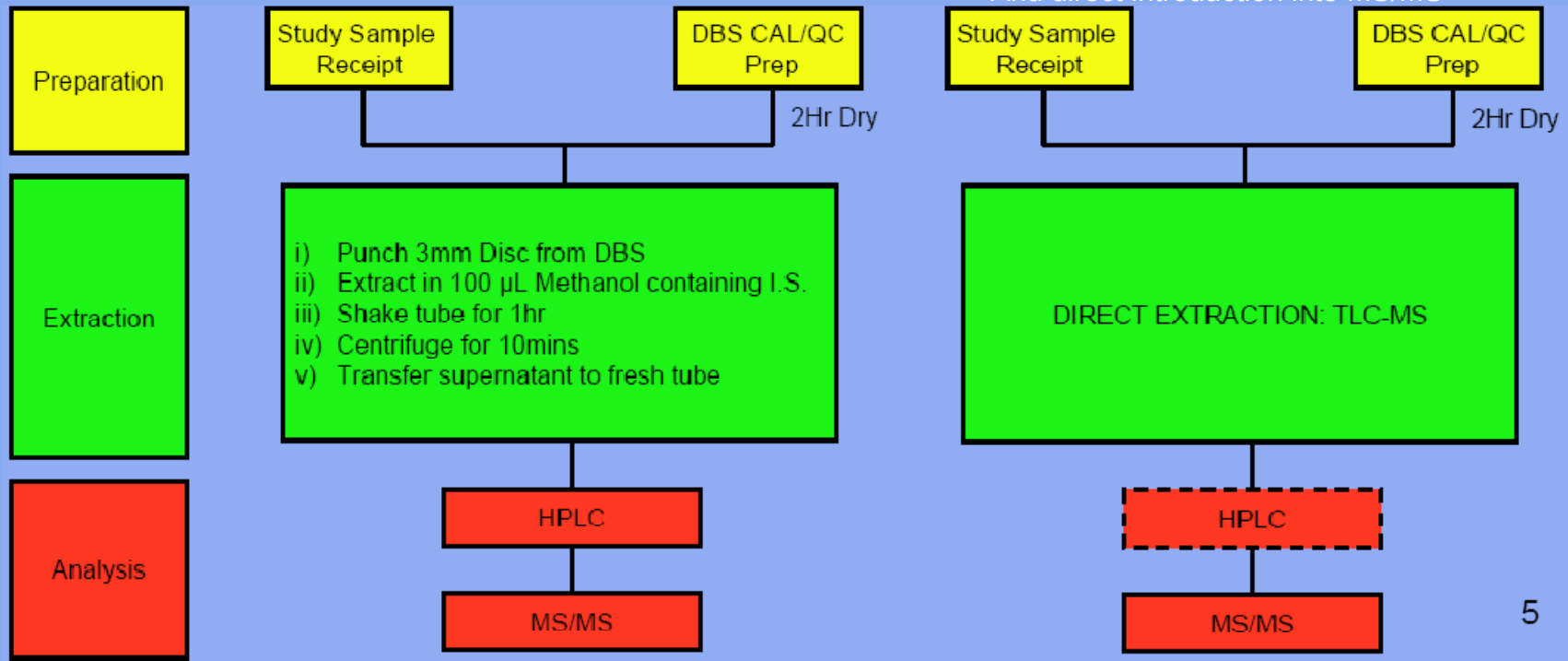
Manual extraction with methanol
Followed by HPTLC-MS/MS analysis

Direct Extraction: „Instant“

Extraction in Mobile Phase followed by HPLC-MS/MS analysis or

Direct Analysis: „Instant“

extraction in extraction solvent
And direct introduction into MS/MS



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Sensitivity Summary (Using HPLC Column)

	Response: Analyte Peak Height/cps		% increase in Response
	Std HPLC-MS/MS	CAMAG 2s EXT	
Single Analyte Assays:			
Sitamaquine	110000	770000	+700%
Paracetamol	5940	80000	+1300%
Cassette Test compounds:			
Ibuprofen	35000	290000	+800%
4-Nitrophthalic Acid	200000	2300000	+1150%
Paracetamol	74000	250000	+350%
Simvastatin	18000	92000	+500%
Sitamaquine	300000	2000000	+700%
Benzethonium Chloride	730000	1000000	+140%
Proguanil	250000	1000000	+400%
SB243213 Internal Std (Pos ion mode)	730000	1500000	+200%
SB243213 Internal Std (Neg ion mode)	350000	2000000	+600%

Publication about DBS-MS Interface

Direct Quantitative Bioanalysis of Drugs in Dried Blood Spot Samples Using a Thin-Layer Chromatography Mass Spectrometer Interface

Paul Abu-Rabie* and Neil Spooner

PreClinical Development Drug Metabolism and Pharmacokinetics, GlaxoSmithKline Research and Development, Park Road, Ware, Hertfordshire, SG12 0DP, U.K.

The CAMAG thin-layer chromatography mass spectrometer (TLC–MS) interface has been assessed as a tool for the direct quantitative bioanalysis of drugs from dried blood spot (DBS) samples, using an MS detector, with or without high-performance liquid chromatography (HPLC) separation. The approach gave acceptable sensitivity, linearity, accuracy, and precision data for bioanalytical validations with and without the inclusion of HPLC separation. In addition, the direct elution technique was

monitoring studies at physiologically relevant concentrations.[5–7] The surge in interest in DBS techniques for supporting pharmaceutical exposure studies is due to the many advantages it offers over conventional plasma sampling. These include the reduction in blood volumes required, with associated cost and ethical advantages, the simplification of clinical sampling procedures, and the reductions in sample processing, storage, and transportation costs.[4–7] However, it is notable that these benefits are not necessarily transferred into the bioanalytical laboratory. For example, the requirement to punch a disk out of the DBS sample

chromatography–MS interface

Preclinical drug development and pharmacokinetic scientists at GlaxoSmithKline (GSK, Hertfordshire, UK) have evaluated the use of a CAMAG thin-layer chromatography–mass spectrometer (TLC–MS) interface for analysis of dried blood spot (DBS) samples with the

be a requirement for a detector with an extended usable dynamic range, probably in the scale of five orders of magnitude."

Dried blood spot sampling has many advantages for the analysis of blood drug concentrations in preclinical and clinical studies, includ-

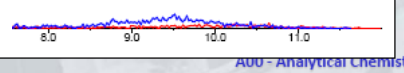
l Extraction Based Sealing
ɔe for Mass Spectrometric
d Spots and Mouse
ıe Sections

ɯical Sciences Division, Oak Ridge National Laboratory,

ɔe that combines ambient surface sampling and ionization for analysis
ic of analytes that are in or on surfaces.[1–3] Direct liquid extraction
d surface sampling probes reconstitute or extract an analyte from
ns a surface by contacting that surface with a confined liquid stream.
a- That stream is both brought to the surface and is then carried on
or to the ionization source through a probe acting as a liquid conduit.
ıe In general, these types of probes might be coupled to any liquid
c- introduction ionization source (e.g., electrospray ionization (ESI),
e- atmospheric pressure chemical ionization (APCI), or another).
th Once in solution and carried into the source, analyte ionization is

"sensibilità"

pari a circa 12 volte



Courtesy CAMAG

Fully automated DBS-MS extraction device

New Catalogue

Wincats 1.4.5

- Connecting the New Scanner to Wincats
- Compatible with Windows 7 and XP (32bit)
- Various Bugfixes
- New features in Comperison Viewer

CBS 105 out soon!