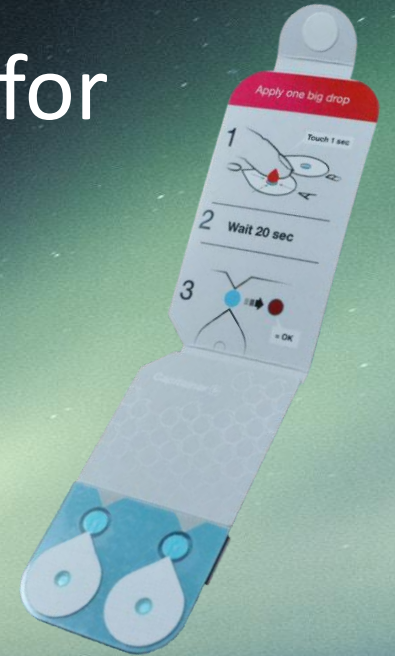


Our vision is to make laboratory services available for everyone everywhere!

Capitainer



Precision
qDBS
sampling
you can
trust

CONFIDENTIAL

The problem: Standard venous collection of blood



Patient



Travel



Blood draw



Transport



Blood processing



Blood analysis



Clinical outcome

Blood sampling today is based on:

1. the patient going to a health care facility
2. a professional to do the blood collection

85% of all medical decisions are based on a blood sample taken

- *The process is inconvenient and time consuming for the patient*
- *Medical facilities are overloaded*
- *The check-up frequency is limited*
- *Often need for cold chain infrastructure*

Cost ~100-300 USD/patient

The technology: Dry Blood Spot (DBS) – Dry Plasma Spot (DPS)

Capture finger blood on paper at home instead of venous blood collection in a tube at a clinic



Small
volume



No phlebotomist



Self-collection
possible



No cold chain
required



No patient
transport



Possible to send
with regular mail

The Capitainer device is designed for accurate home self sampling.

The Solution: Capitainer product platform

The Capitainer products:

- *Our products represent world class technology designed for **collecting blood at home***
- ***Passive blood or plasma collection** in a fixed volume – no additional steps needed by donor or lab*

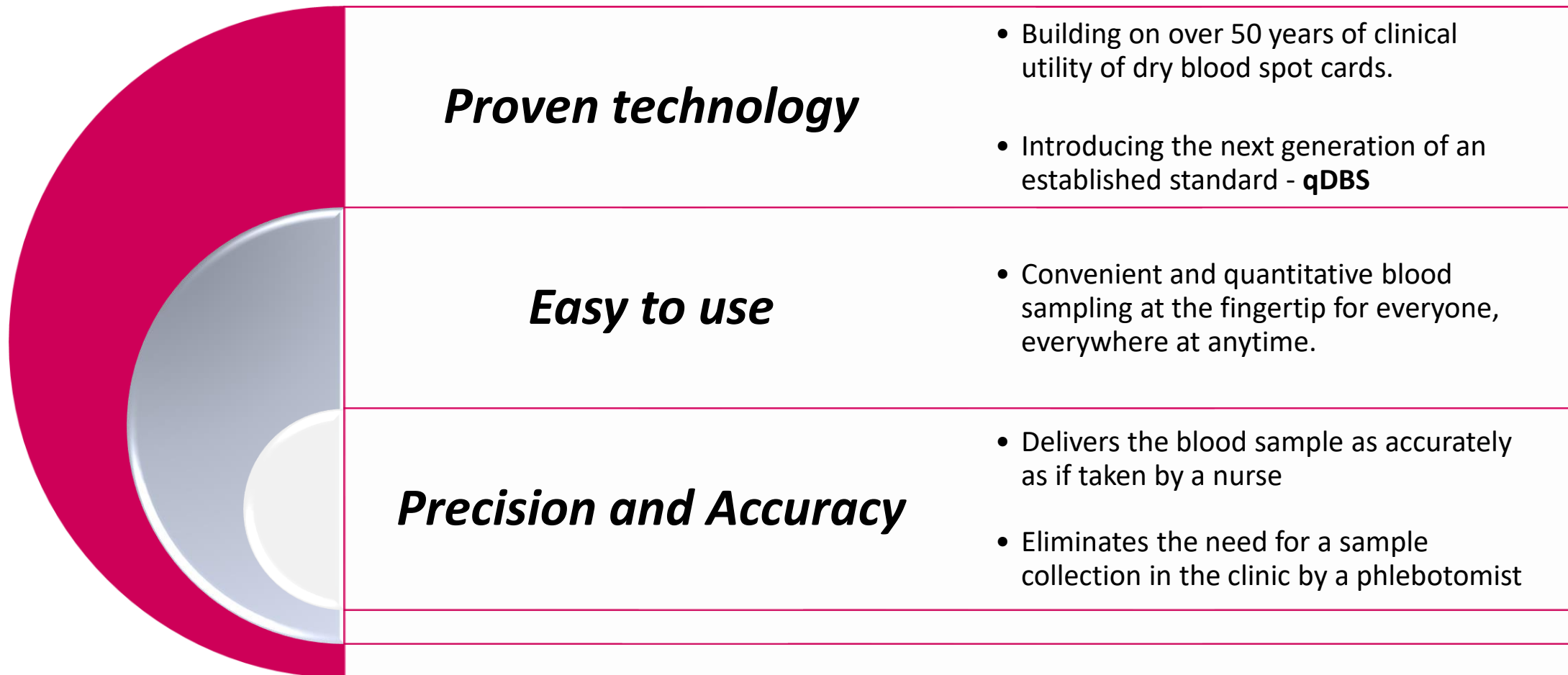
Capitainer®B
(Currently available)

Meters a defined volume of blood from a finger prick, independent of haematocrit. The system passively solves the problem of volume control of a collected blood sample. **The product is designed for having comparable precision & accuracy as traditional venous blood sampling.**

Capitainer®P
(To be launched)

Extracts and meters a defined volume of filtered plasma from finger-prick in a completely autonomous way. Combined with the blood products, **Capitainer can dramatically change how clinical pre-analytics are handled in the future!**

Capitainer brings the laboratory to your fingertips



Users

Centrally funded and commercial labs

- Capitainer blood sampling supports laboratories to access new customers
- Capitainer blood sampling enables expanded geographical footprints – expanding patient reach to global

Clinicians

- Capitainer blood sampling supports flexibility in clinical treatment, increased collection frequency and simplified monitoring
- Capitainer blood sampling enables personal health monitoring, for personalized medicine / companion diagnostics

Patients

- Capitainer is designed for blood sampling at home with similar precision & accuracy to venous sampling
- Capitainer home sampling improves quality of life and continuity of clinical provision

Pharma

- Capitainer enables home sampling during clinical trials
- Capitainer strives to greatly decrease cost and at the same time, improve accuracy and flexibility of clinical trials

Society

- Capitainer enables home-self sampling delivering financial and socioeconomic efficiencies to patient & clinician
- Capitainer blood sampling enables lab optimization and sustainable healthcare resource allocation

Capitainer[®]B deliverables

Capitainer blood sampling enables cost saving, improved healthcare efficiency, reduced environmental impact and quality of life

Accurate sampling

- Defined volume
- Reproducibility: CV, less than < 5%.
- Hematocrit independent

Dry sample storage

- Send with regular mail
- No cold chain required
- Room temp stability and space saving

Analytes

- A significant, and growing number of analytes are already validated on DBS. Capitainer[®]B qDBS facilitates their quantification.

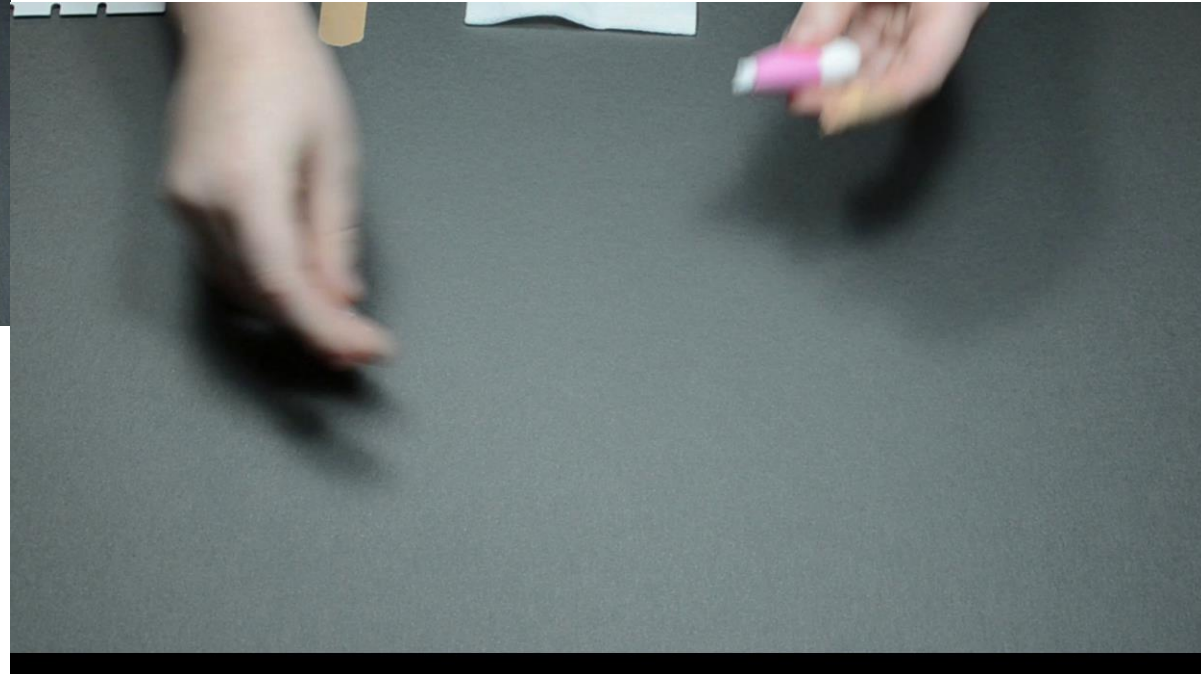


Capitainer® B demonstration

Home sampling demonstrated by a 9-year-old daughter with parental assistance.



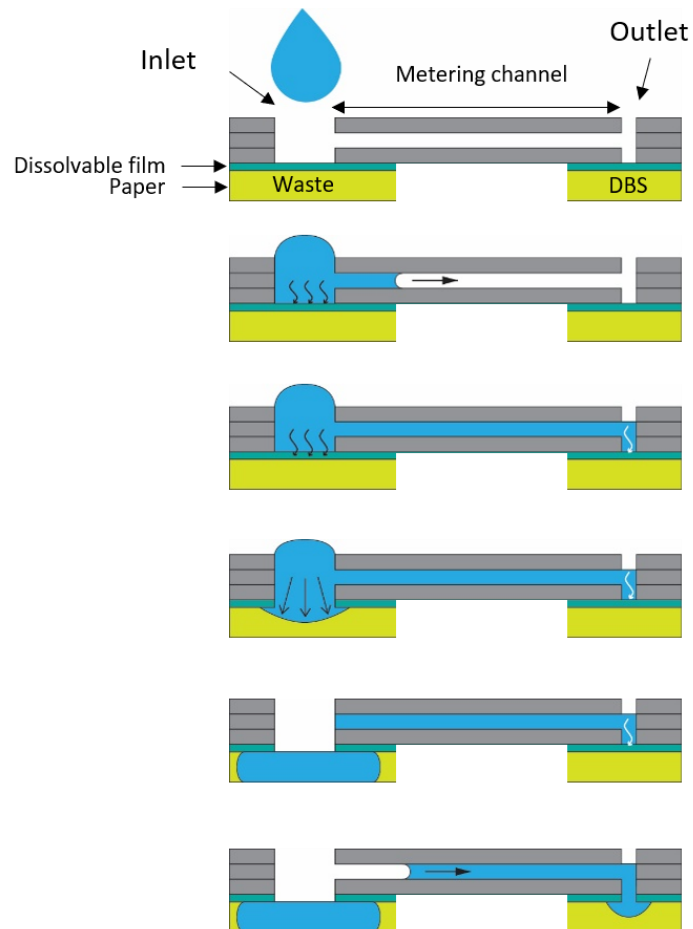
9-year-old daughter preferring to proceed unaided.



Capitainer®B – the technology

The system is designed to capture an exact volume of a fluid without any demands on the donor except for delivering a drop of blood

Lenk et al; Journal Of Pharmaceutical And Biomedical Analysis 2015;7(16):2085-94.



Conclusion:

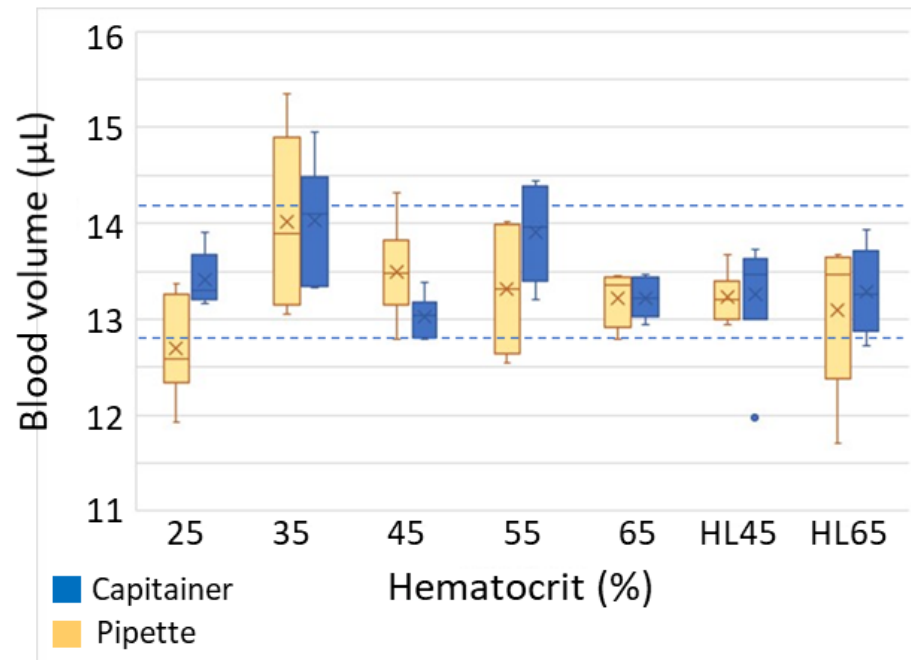
Capitainer®B makes drawing blood being a single act of applying a drop of blood but the underlying technology is highly advanced.

The design is created to stop overflowing as well as underfilling.

Capitainer®B – Validation

Result from independent CRO:

Spooner et al; Journal Of Pharmaceutical And Biomedical Analysis 149 (2018) 419–424”



Conclusion:

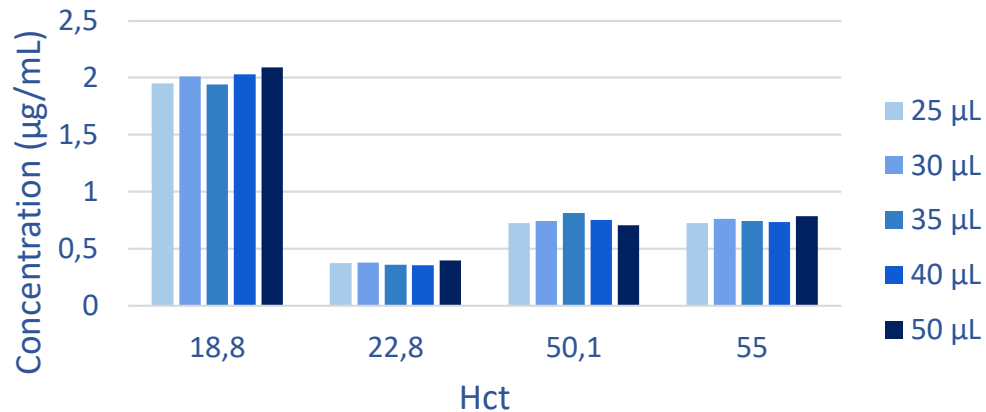
”Volumetric dosing independent of hematorcrit and as accurate as, and more precise than, a standard displacement pipette”

Capitainer® B – Validation

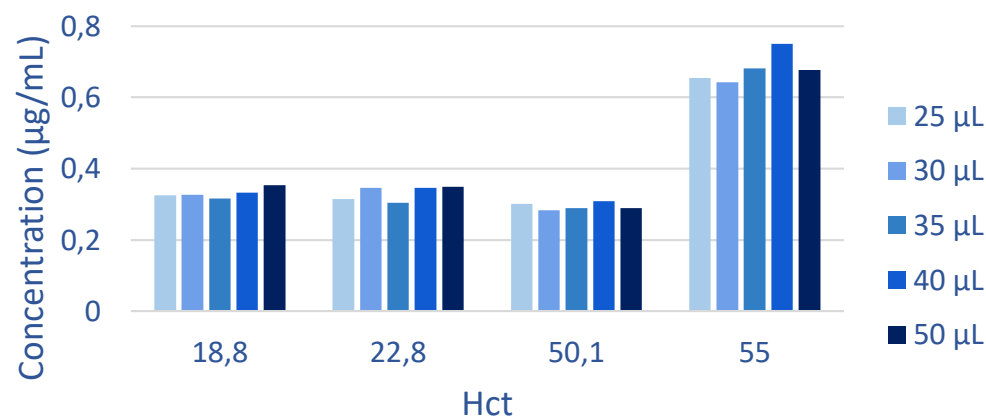
Result from independent CRO:

Stove et al; Analytical Chemistry, 2018 November 6; 90 (21) 12893-12899

Evaluation of different volumes spotted at the device's inlet on the CAF concentration



Evaluation of different volumes spotted at the device's inlet on the PRX concentration



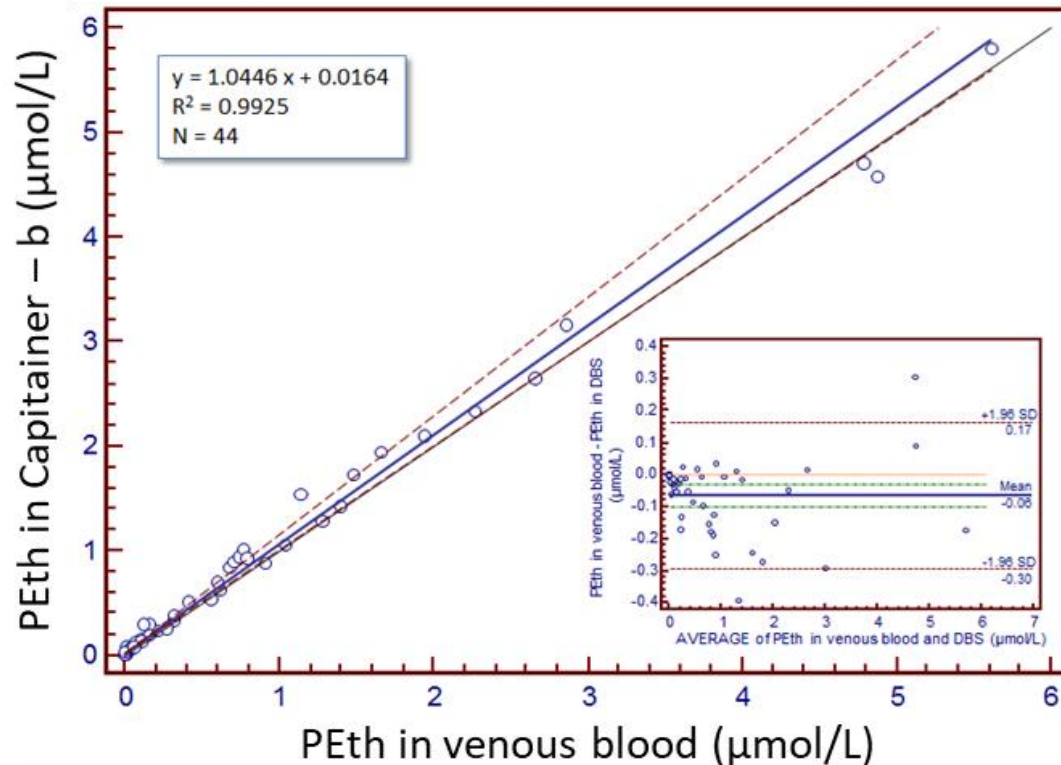
Conclusion:

” Evaluation of a potential volume impact by analyzing caffeine and paraxanthine concentrations in MF-DBS, derived from patient samples with a very low (18.8 and 20.8) or a very high (50.1 and 55) Hct, demonstrated that **the amount of blood added at the inlet of the devices has no influence on the performance of the device, independently from the blood’s Hct.**”

Capitainer B[®] – Validation

Clinical case study: Capitainer[®]B as tool in alcohol abuse monitoring using PEth as marker:

Beck et al; Journal Of Pharmaceutical And Biomedical Analysis 149 (2018) 419–424



Conclusion:

”Good agreement between venous sample and Capitainer-b capillary sample”

Applications

- ❑ Therapeutic Drug Monitoring (TDM)
- ❑ Pre-Clinical and Clinical Research
- ❑ Drug development
- ❑ Biomarkers
- ❑ Drug monitoring
- ❑ Drugs of abuse and doping
- ❑ Antibiotics
- ❑ Hormones and steroids
- ❑ Proteomics



Take home

- ✓ *The timing for Capitainer products is perfect, as a number of future technologies depend on home sampling. Capitainer is the enabler for many such applications – empowering the patient!*
- ✓ *Capitainer has fulfilled the technology needs for home sampling and has a large number of future application possibilities*
- ✓ *The team, the IP and technology is very strong.*