

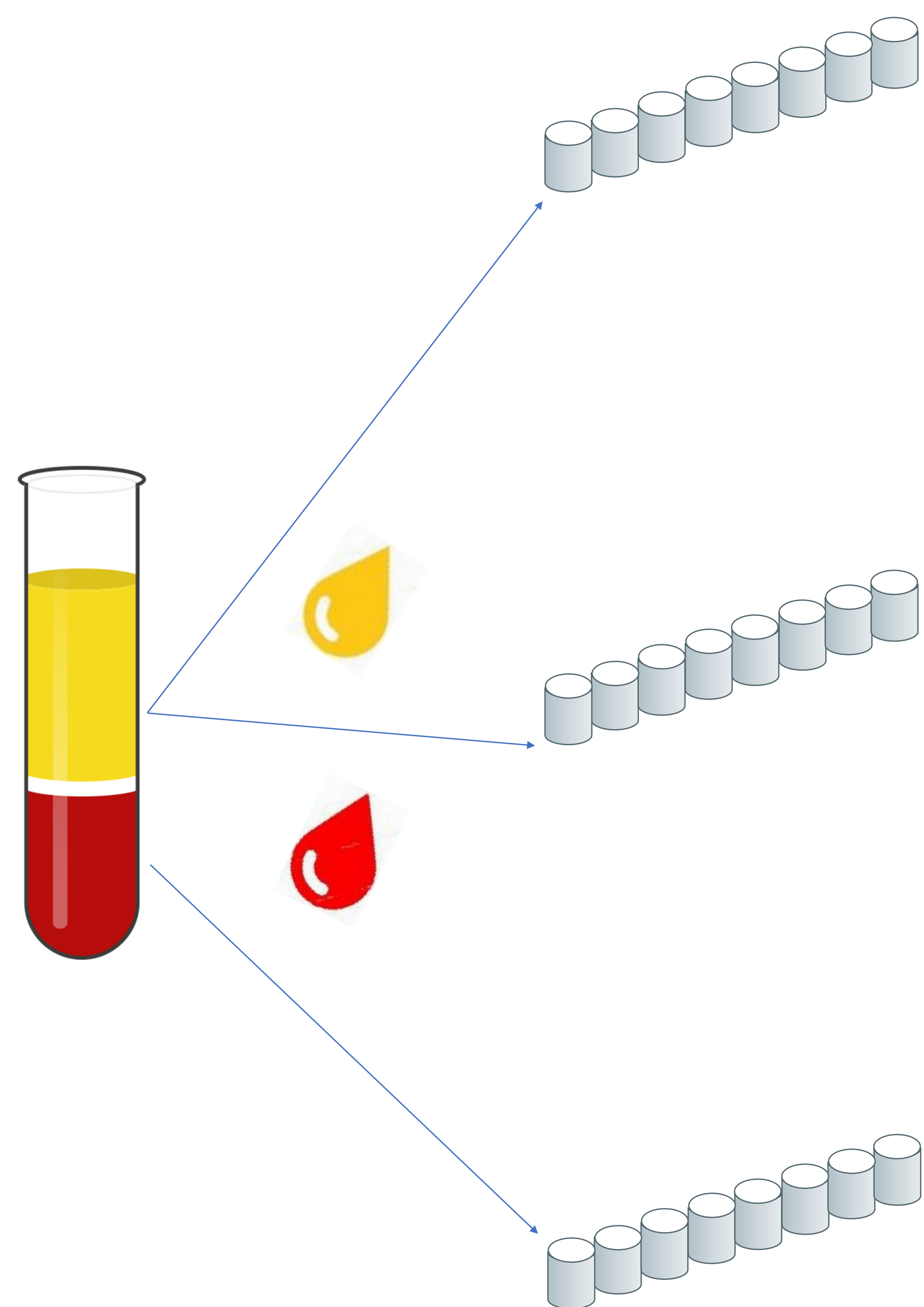
A COMPLETE SOLUTION FOR BLOOD GROUPING

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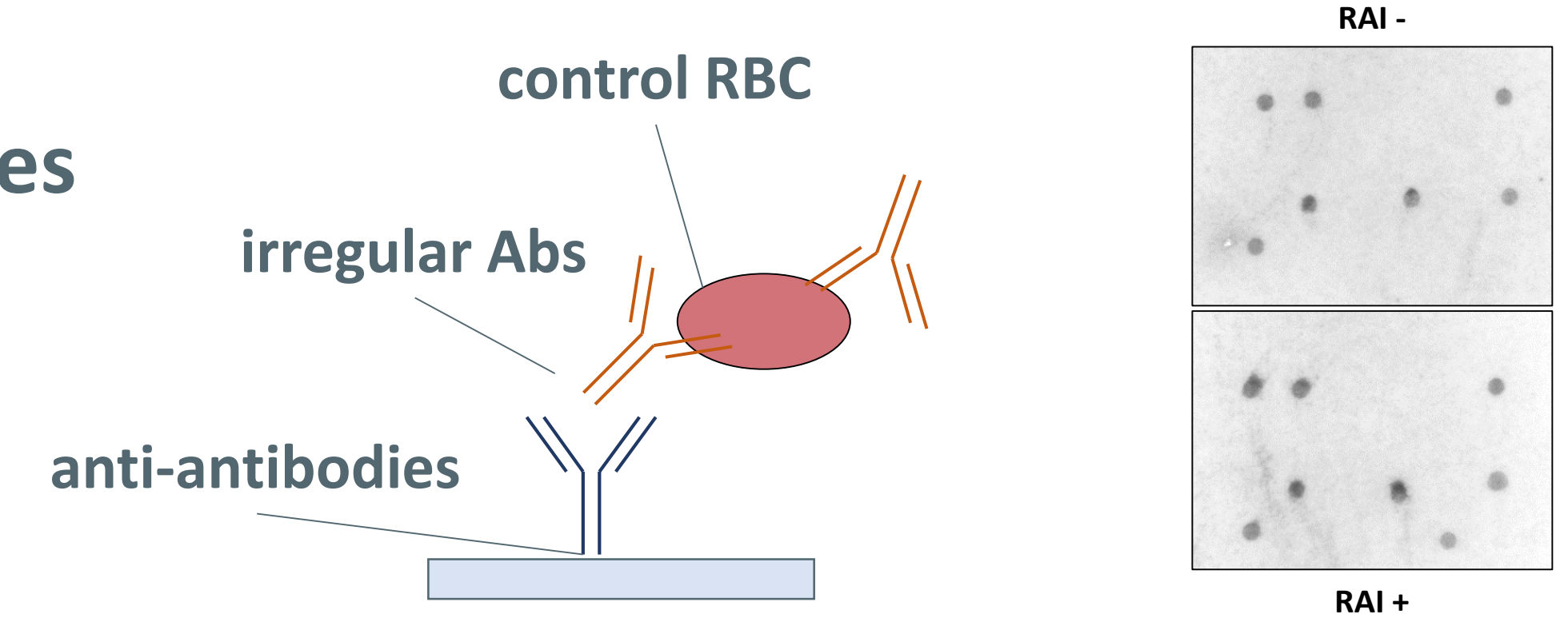
SirYus-IH is a new blood grouping assay in final development phase, which has the capacity to deliver comprehensive red blood cell typing together with regular and irregular antibodies detection.

PRINCIPLES



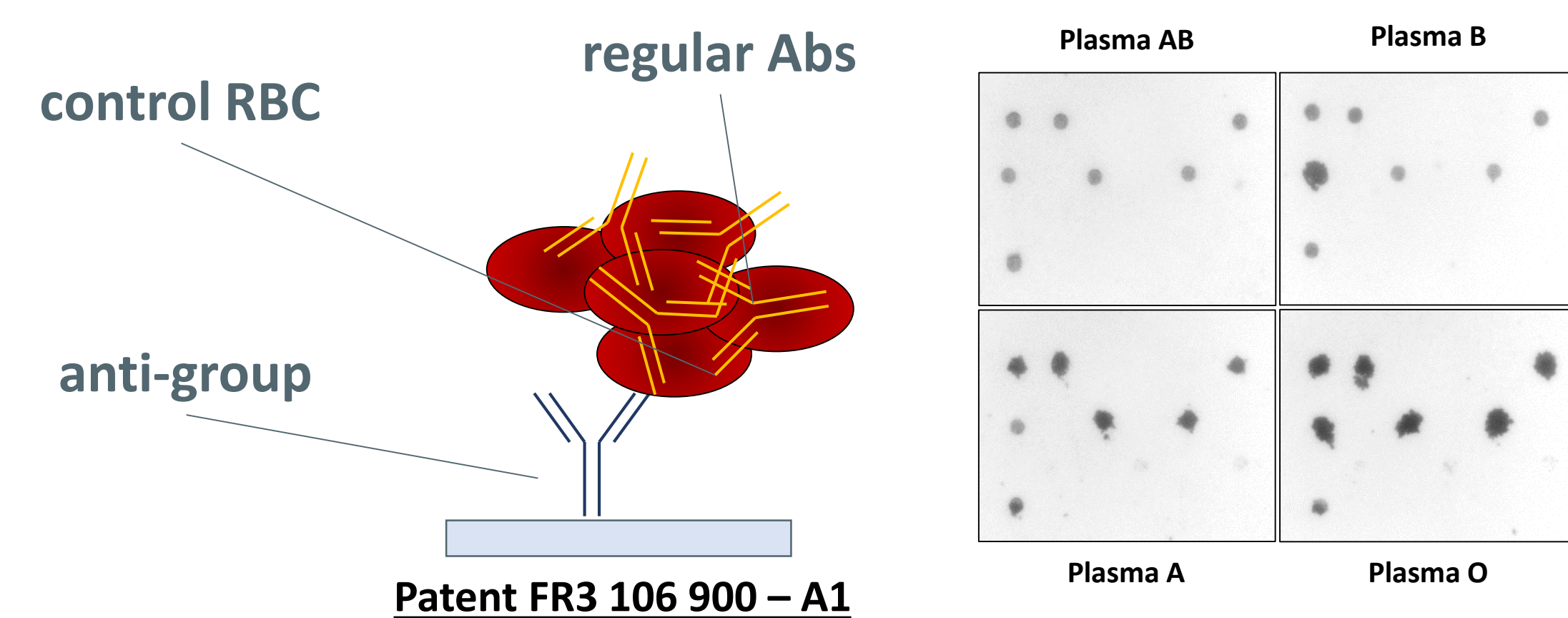
Irregular antibodies detection

- Referenced Red Blood Cells(RBC) sensibilization with patients' plasmas. (20min)
- Samples loading
- Centrifugation



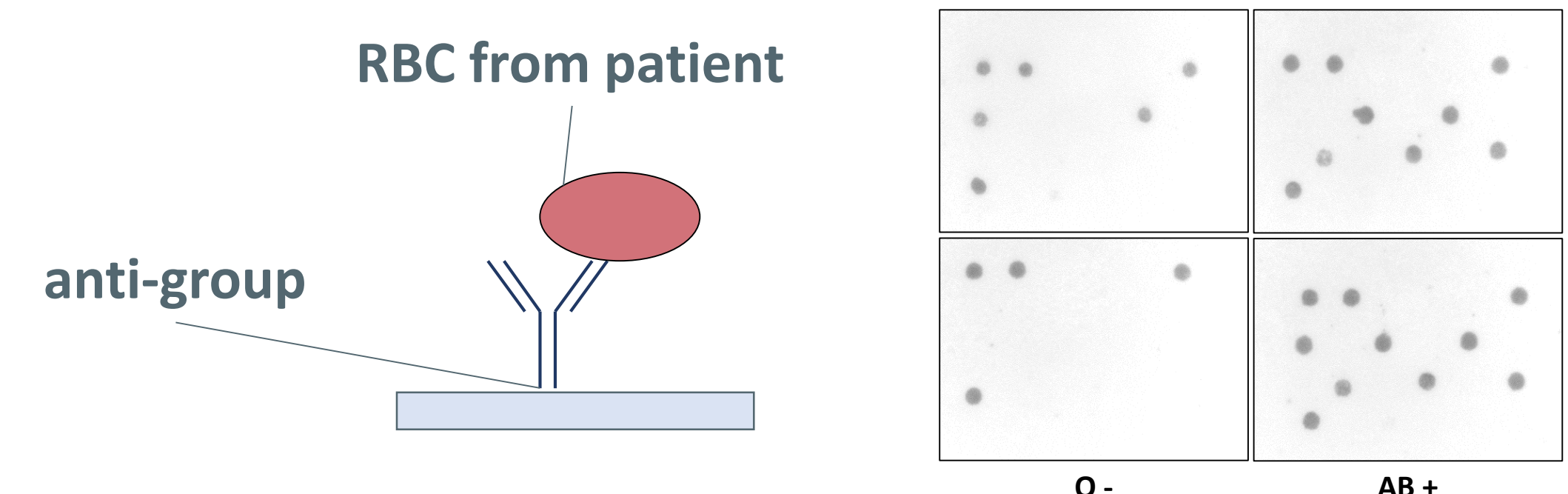
Back-typing

- Plasma / RBC (A1 & B) mixing and loading
- Centrifugation



Typing

- Samples loading
- Centrifugation



Centrifuged whole blood tube

Bioarray

Samples / Reagents mixing and loading

Reading and analysis

RESULTS

SirYus-IH was tested over thousand of samples during the development phase. Last evaluation on 96 samples from French Blood Bank give the following results.

Blood grouping

	CONCORDANCE DIRECT TYPING	CONCORDANCE BACK TYPING
A	100%	100%*
B	100%	100%
AB	100%	100%
O	100%	100%

* reincubation of 4 samples due to no conclusive agglutination

Phenotyping

	SPECIFICITY	SENSITIVITY
ANTI D	100%	100%
ANTI E	100%	100%
ANTI C	100%	100%
ANTI c	100%	100%
ANTI e	100%	100%
ANTI K	100%	100%

IAT

N = (96)	SENSI.	SPEC.	CONC.
Ech.	98%	78% (100%)*	85% (99%)*

	NUMBER	TITRATION MIN.	TITRATION MAX.
ANTI D	7	1/64	1/256
ANTI c	8	1	1/32
ANTI E	11	1/4	1/32
ANTI K	11	1/128	1/1024
ANTI Cw	8	1/2	1/64
ANTI D/k	3	1/4 & 4/4	1/8 & 1/258

* reincubation because of false positive

CONCLUSION

SirYus-IH is an innovative patented multiplex approach using hemagglutination principles. This method allows the complete blood grouping (ABO, D, IAT and RhKhell) by using only 4 wells instead of tens. The process will require few microliters of samples with a time to results equivalent to gel cards.