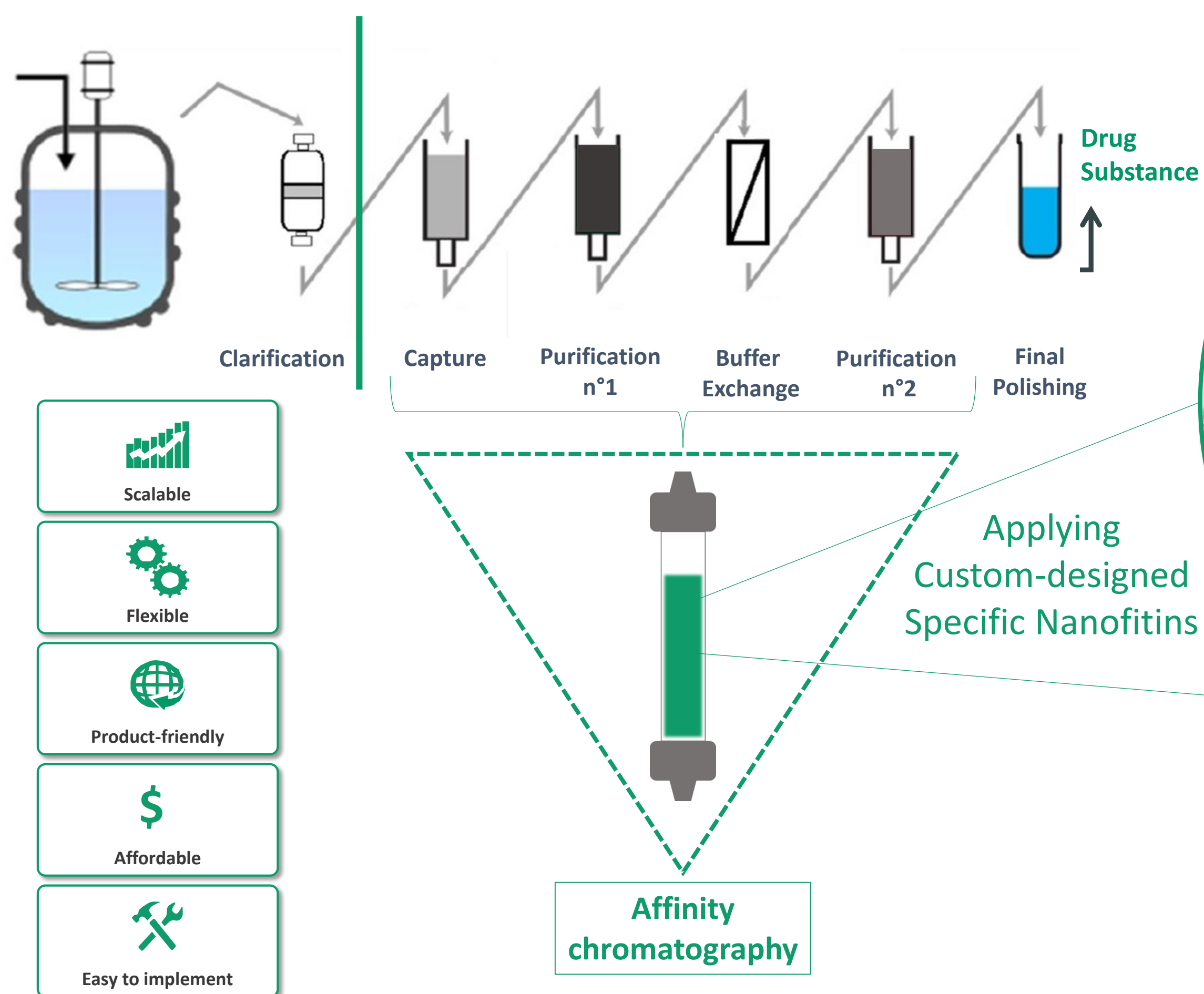


Affinity Separation powered by Nanofitins®

Process simplification and time reduction by introducing affinity in DSP



Tunable affinity ligands

- 100% in vitro selection process
- Highly specific for the product, ensuring high purity
- Mild elution condition, ensuring product integrity
- Applicable to any biologics
- NF binding pocket can be engineered to improve performance

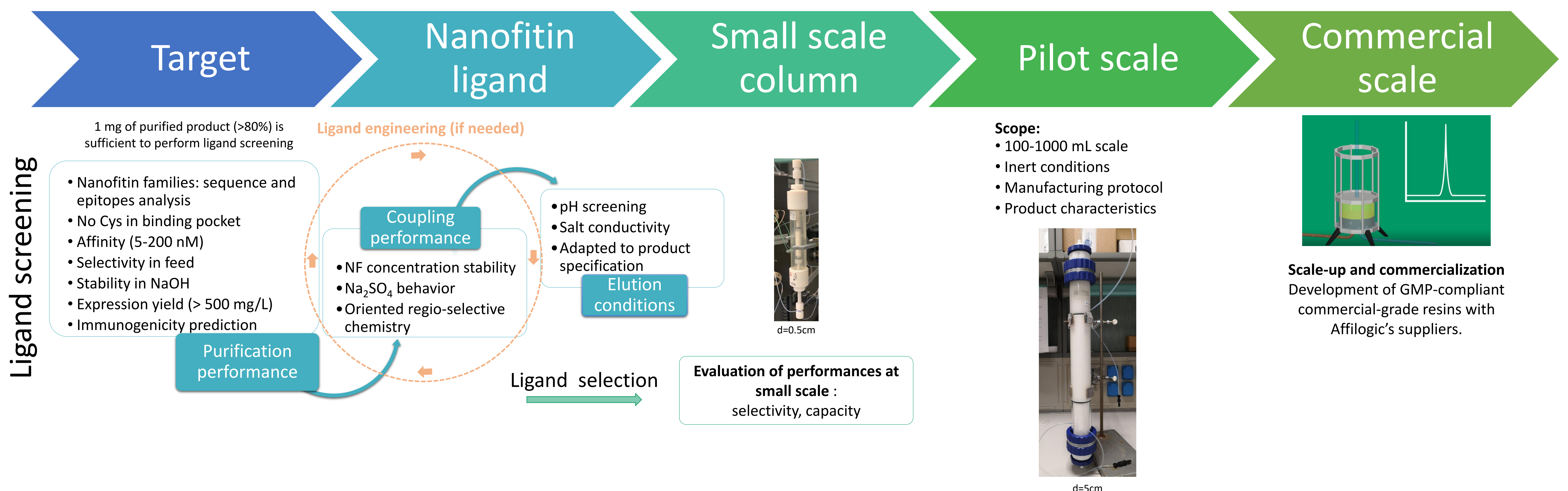
Extremely robust

- Stable to T° (>80°C) and pH (0-13)
- Highly resistant to CIP treatments
- Straightforward and regio-selective conjugation to resins, can be extended to other supports such as membranes
- Ligand multimerization by genetic fusion

Affordable custom ligands

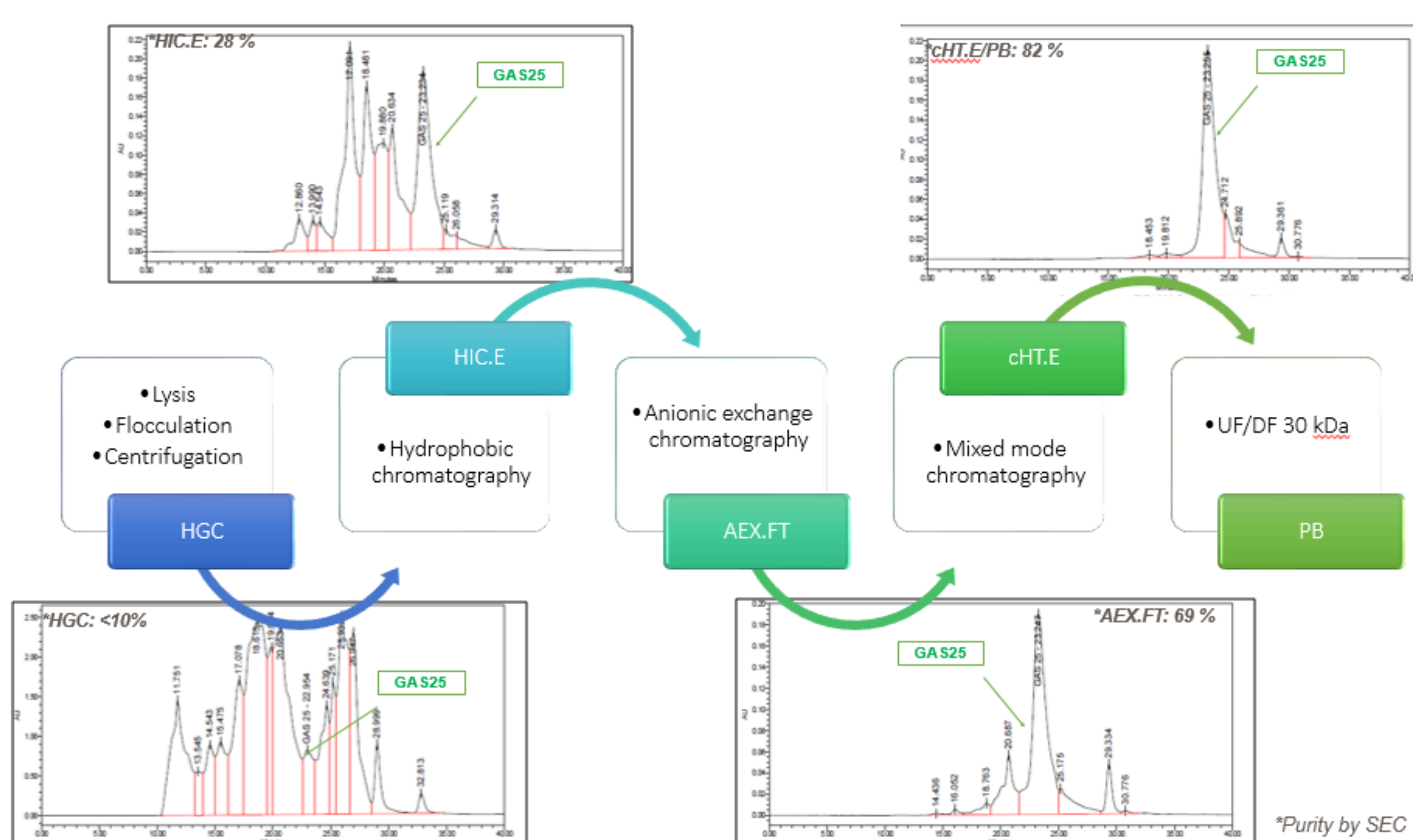
- Simple and cost-effective animal free manufacturing by *E. coli* fermentation
- Scalability of NFs and resin production demonstrated at an industrial scale to insure a GMP compliant process

Development of tailor-made affinity chromatography columns



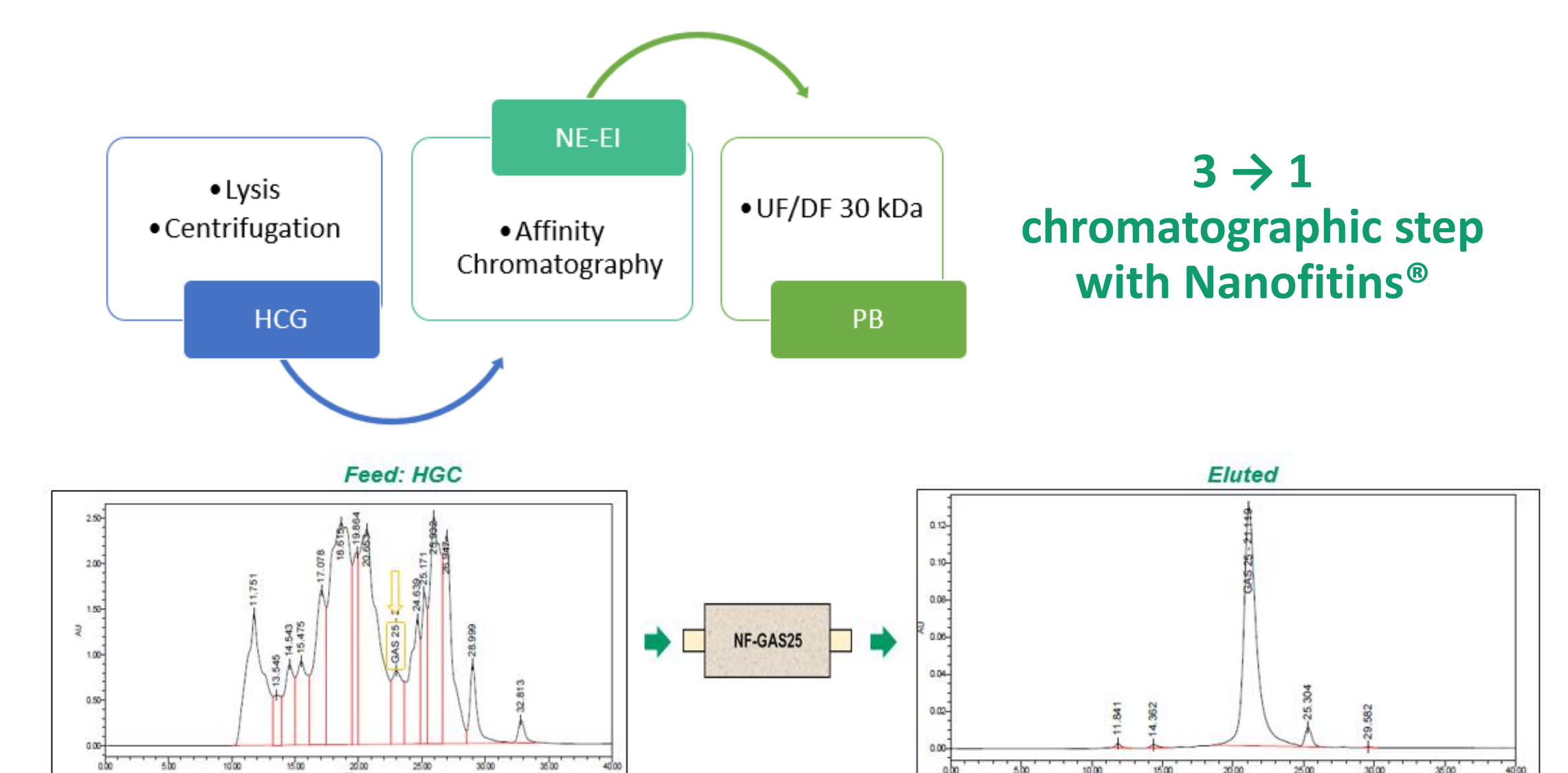
Case study of Gas25 vaccine purification

Actual process



Attributes	Standard process	NF process*
Purity RPC [%]	90	94
Integrity SEC [%]	84	91
Purity SDS-Page [%]	84	94
HCP-WB	Negative	Negative
DNA reduction [log]	2.5	4.8
DNA/protein ratio [ppm]	29	47
Bioburden (plates)	Negative	Negative
Process yield	38%	60%

Affinity process powered by Nanofitins®



- CIP conditions allow column regeneration (demonstrated beyond 35 cycles)
- No ligand leakage detected⁵
- Dynamic binding capacity: 15 mg/mL resin
- Clearance demonstrated for DNA, HCP, Bioburden, Endotoxins, IPTG
- Cost effectiveness compared to conventional process

And you, what would you purify with Affichrom' columns ?

Contact Julie Jouan at affichrom@affilologic.com

