

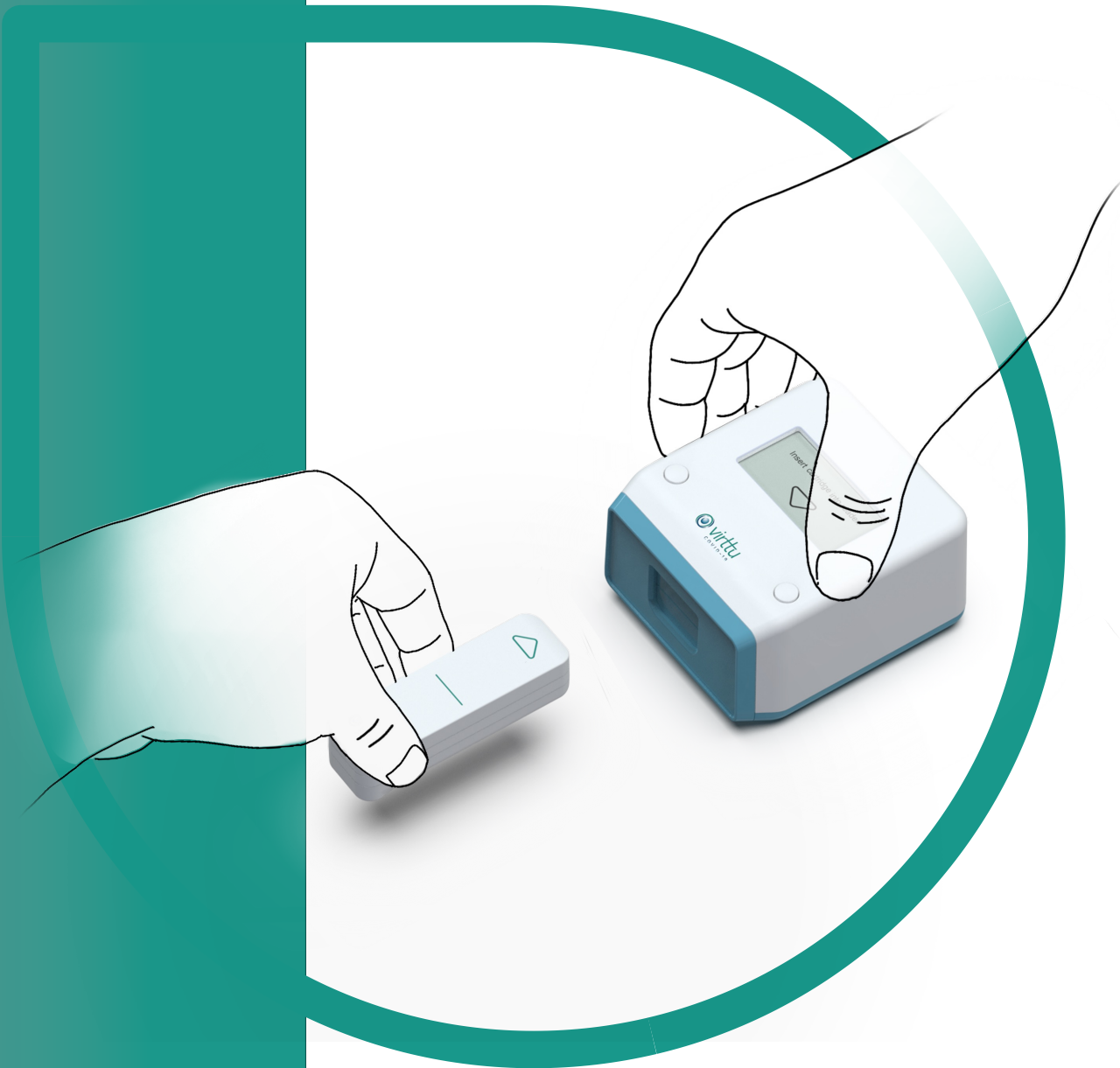
virex diagnostics

*NEXT-GENERATION AT-HOME
DIAGNOSTIC TESTING*

sorrento
THERAPEUTICS

VIREX

*Next-generation at-home
diagnostic testing
that rivals PCR-level sensitivity
for daily COVID-19 tests
and early Cancer diagnosis*



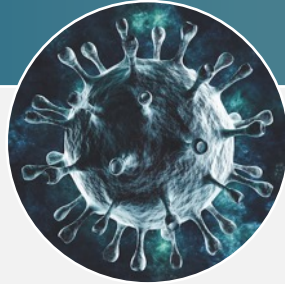
VIREX TECHNOLOGY

leverage existing worldwide manufacturing infrastructure for glucometers and glucose strip tests to provide affordable and highly scalable next-generation diagnostic solutions



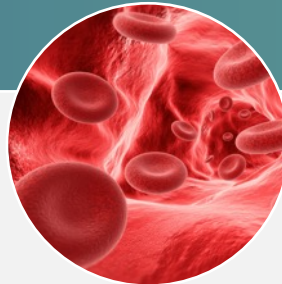
Virex Technology

Invented and developed by Boston University (BU) Professors Mark Grinstaff and Scott Schaus and Virex scientists, **employs widely used electrochemistry found in household diabetes glucometer devices** for next generation diagnostics.



Extremely high sensitivity for multiple biological analytes

including **COVID-19 virus**, detection as sensitive as **10 TCID50** rivalling PCR sensitivity.



Detects a liver cancer biomarker

in as little as **5 microliters of blood**.



Virex's diagnostic tests provide **qualitative and/or quantitative results in 5 minutes or less.**

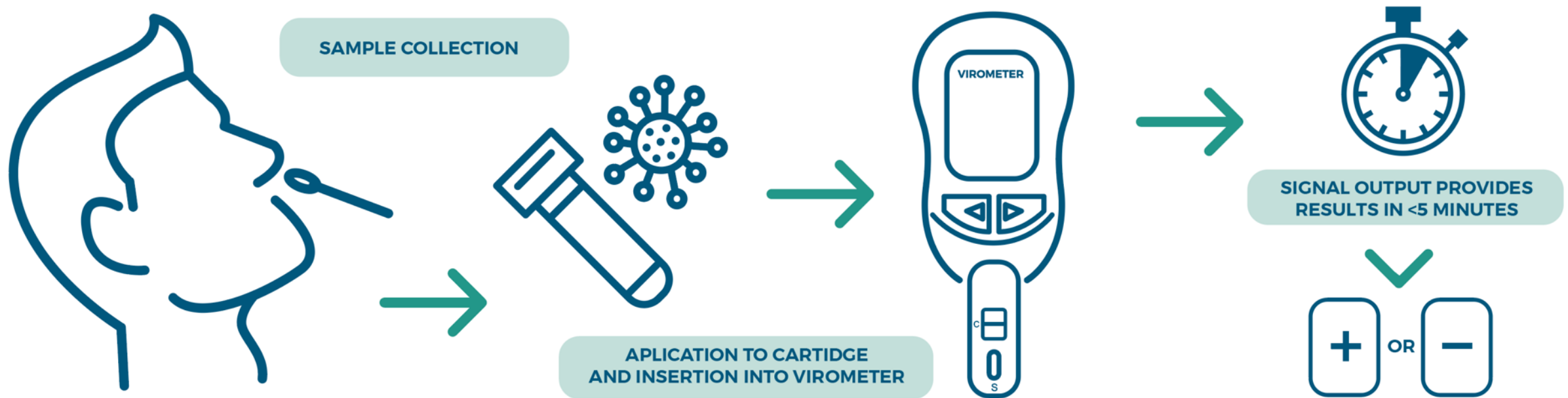


Leverage existing worldwide manufacturing infrastructure for glucometers and glucose strip tests to provide

affordable and highly scalable next-generation diagnostic solutions

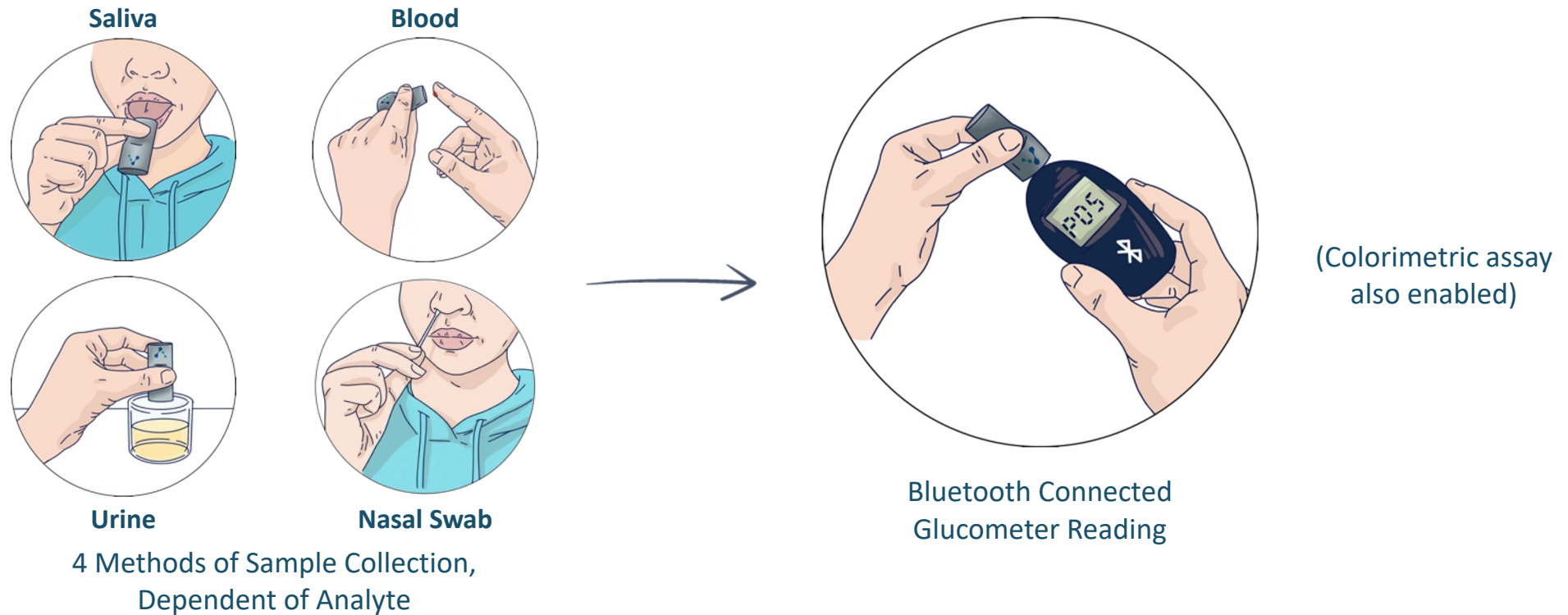
for COVID-19 tests, early cancer detection and beyond.

VIREX NEXT GENERATION DIAGNOSTIC: FAST, SENSITIVE, ACCURATE



VIREX INNOVATION

Virex uses novel chemistry to repurpose glucometer devices as a platform for infectious disease, protein and other biomarker detection.



LOW-COST

Builds upon scaled glucometer manufacturing Infrastructure.

RAPID

Results delivered within 5 minutes.

SENSITIVE

Sensitivity comparable to PCR testing.

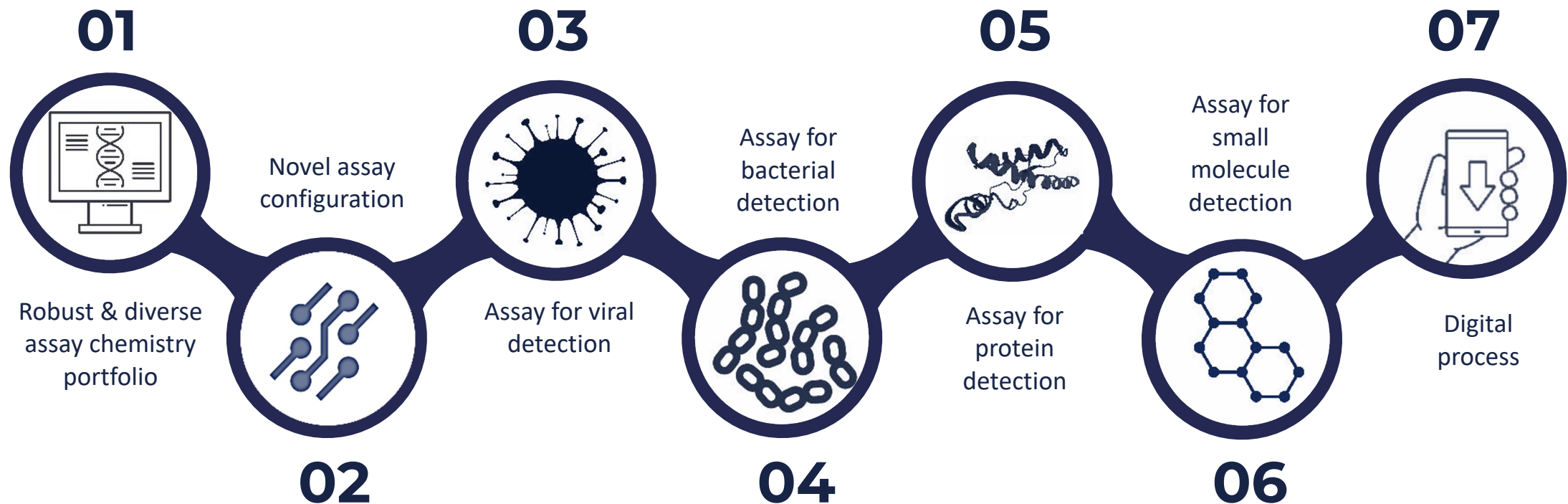
SIMPLE

Saliva, nasal swab, blood or urine based with only 2 steps.

INTELLECTUAL PROPERTY

PCT Exclusively licensed from Boston University

Virex employs a robust IP portfolio encompassing assay design, strip configuration, diverse pathogen detection, diverse biomarker detection and digital process.





VIREX TECHNOLOGY SUMMARY AND COMPETITIVE LANDSCAPE

DIAGNOSTICS MARKET OVERVIEW

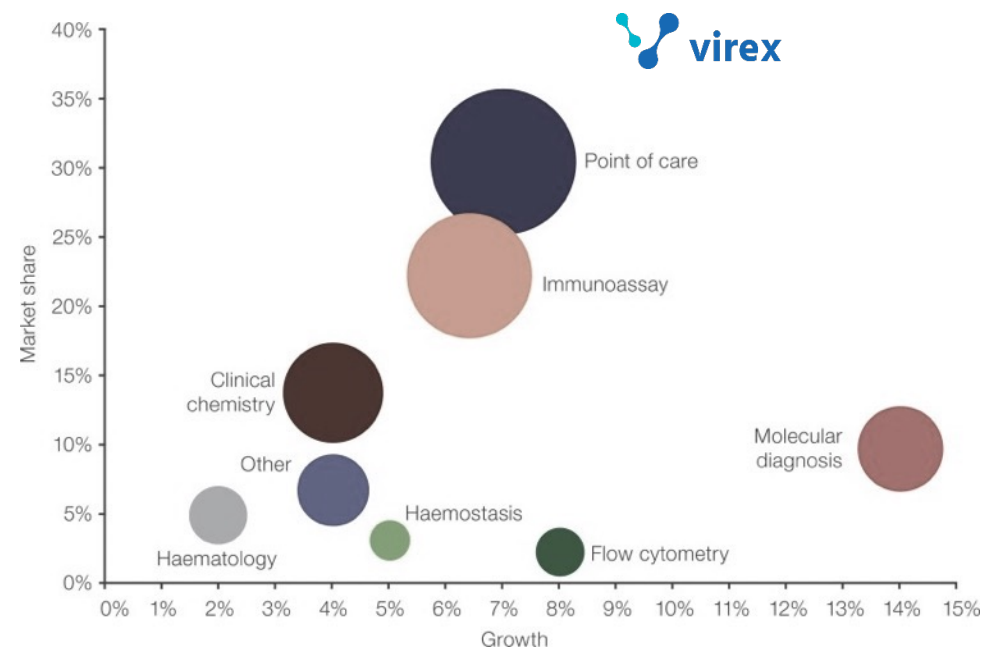
Global Market \$35B in 2020, forecasted to grow to \$81B in 2028 [1]

Virex platform has value for a variety of customer types [3]



• Fast • Decentralized • Selective Sensitive • Cost effective

POC tests are a high growth segment within the diagnostics industry [2]



Sources:

[1] [Fortune Business Insights](#)

[2] [NIH](#)

[3] [ACS Nano 2021, 15, 5, 7899–7906, Publication Date: May 13, 2021, https://doi.org/10.1021/acsnano.1c02981](https://doi.org/10.1021/acsnano.1c02981)

VIREX BIOANALYTE DETECTION PLATFORM

Analyte	LoD	Time to Result	Clinical Range
SARS-CoV-2 Nucleocapsid Protein	20 pg/mL*	5 min	5 - >10,000 ng/mL
SARS-CoV-2 Whole Virus	~10-50 TCID ₅₀ /mL	5 min	10 ² - > 10 ¹² TCID ₅₀ /mL
IL-6 (inflammation, cancer, lupus)	0.02 ng/mL	7 min	0.02 - > 5 ng /mL
Prolactin (prolactinoma)	0.1 ng/mL	5 min	20 – 500 ng/mL
Osteopontin (cancer)	0.1 ng/mL	7 min	20 – 2,000 ng/mL

Data from laboratory setting based on Sorrento/Virex MTA only and Virex proprietary IP, including novel pulse amperometry

ELECTROCHEMICAL ANALYTE DETECTION: INDUSTRY

Virex uniquely repurposes glucometer technology with significant sensitivity improvement

Analyte	Brand	Price / test (\$)	Price/Reader	Limit of detection, or clinical range (ng/mL)
SARS-CoV-2 Nucleocapsid Protein	Virex Health	Market	Market	~ 0.05*
Glucose	Commodity	\$0.24	\$20	100,000
Lactate	Nova Biomedical	\$1.84	\$300	90,000
Cholesterol	PTS Diagnostics*	Meter + 3 Strips \$169		100,000
Cholesterol	Curo	Meter + Strips \$95		100,000
A1C	PTS Diagnostics	Meter + 20 Strips \$194		75,000
Prothrombin	Siemens	Unknown	\$1,500	0.8 INR

**Data from laboratory setting based on Sorrento/Virex MTA only and Virex proprietary IP, including novel pulse amperometry*