



Transforming PCR testing for infectious diseases @ANYWHERE™

Kevin Kraus
CEO

July 16, 2026

THE PROBLEM

**14M
deaths**

annually from
infectious
diseases

**Lack of
access**

to diagnostic
tests
& treatment

**Unmet
need**

rapid, accurate,
affordable
PCR tests
@ANYWHERE™

WHY PCR TESTING MATTERS?

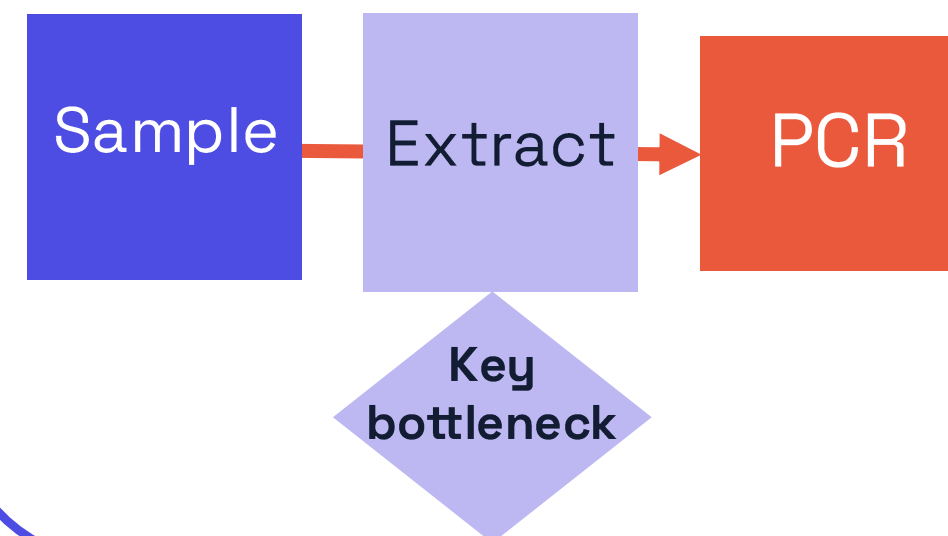
PCR is the gold-standard
for infectious diseases testing

But it's complex, expensive and still stuck in the lab

Sample collection
has toxins



Complicated
tests & equipment



High cost & skilled
staff required



OUR VISIONARY SOLUTION

Transforming PCR testing for infectious diseases @ANYWHERE™



Direct-to-PCR chemistries
& Sample collection



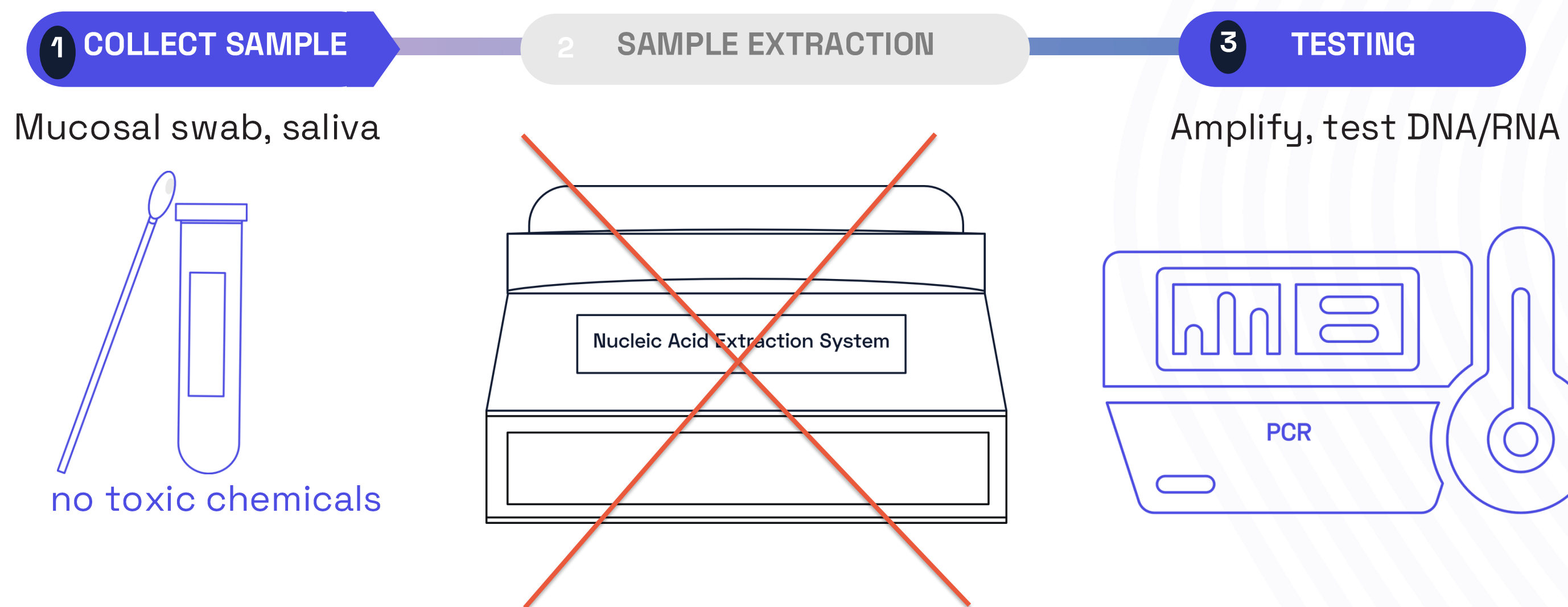
Microfluidics
& Acoustic mixing



Handheld, smartphone
powered testing device

Combining proven platform technologies
to deliver rapid, accurate and affordable tests anywhere

Simplified PCR testing enables rapid, accurate and robust infectious disease testing



**Dramatic
improvement vs.
conventional PCR**

5 - 14x faster

Highly accurate

Lower cost

Direct-to-PCR: 1st in nasal swabs & saliva

590,000+

patients tested
for SARS-CoV-2

100%

diagnostic accuracy
(swab)

**Proof of
Concept**

- Flu + COVID
- STIs (CT/NG)

2 Issued U.S. Patents | 5 Pending Applications

Landmark patent



US012344889B2

(12) **United States Patent**
Blomquist et al.

(10) **Patent No.:** **US 12,344,889 B2**
(45) **Date of Patent:** ***Jul. 1, 2025**

(54) **EXTRACTION-FREE PATHOGEN TESTING METHODS**

(71) Applicants: **Transformative Biotech, LLC**,
Boulder, CO (US); **The Regents of The University of Colorado**, Aurora, CO (US)

(72) Inventors: **Robert E. Blomquist**, Boulder, CO (US); **Shi-Long Lu**, Englewood, CO (US); **Brian L. Harry**, Denver, CO (US); **Jose P. Zevallos**, St. Louis, MO (US); **Xin Yao**, Boulder, CO (US)

(73) Assignees: **Transformative Biotech, LLC**, Boulder, CO (US); **The Regents of the University of Colorado**, Aurora, CO (US)

FOREIGN PATENT DOCUMENTS

EP	3985129	A1	*	4/2022	.....	C12Q 1/6876
WO	WO-2013006793	A3	*	5/2013	.....	C12Q 1/68
WO	WO-2021133943	A1	*	7/2021	.....	A61M 1/362
WO	WO-2021168478	A1	*	8/2021	.....	C12Q 1/6844
WO	WO-2021202158	A1	*	10/2021	.....	C12Q 1/6844
WO	WO-2022020886	A1	*	2/2022	.....	C12Q 1/6806
WO	WO-2022192440	A1	*	9/2022	.....	C12Q 1/6806
WO	WO-2022198086	A1	*	9/2022	.....	C12Q 1/6806
WO	WO-2022236193	A2	*	11/2022	.....	C12Q 1/701
WO	WO-2023287901	A1	*	1/2023	.....	C12Q 1/6806
WO	WO-2023081029	A2	*	5/2023	.....	C12Q 1/6806

OTHER PUBLICATIONS

Beltran-Pavez et al., 2020. SARS-COV-2 detection from nasopharyngeal swab samples without RNA extraction. Biorxiv, pp. 2020-03. (Year: 2020).*

Blow et al., 2004. Virus inactivation by nucleic acid extraction

US #12,344,889
Extraction-Free Pathogen Testing

Platform extending patent



US012680130B2

(12) **United States Patent**
Blomquist et al.

(10) **Patent No.:** **US 12,680,130 B2**
(45) **Date of Patent:** **Jul. 14, 2026**

(54) **DEVICES AND METHODS FOR EXTRACTION-FREE PATHOGEN TESTING**

(71) Applicants: **Transformative Biotech, LLC**,
Boulder, CO (US); **THE REGENTS OF THE UNIVERSITY OF COLORADO**, Aurora, CO (US)

(72) Inventors: **Robert E. Blomquist**, Boulder, CO (US); **Shi-Long Lu**, Englewood, CO (US); **Brian L. Harry**, Denver, CO (US); **Xin Yao**, Boulder, CO (US)

(73) Assignees: **Transformative Biotech, LLC**, Boulder, CO (US); **The Regents of the University of Colorado**, Aurora, CO (US)

OTHER PUBLICATIONS

WO	2021/246820	A1	12/2021
WO	2022/192440	A1	9/2022
WO	2023/081029	A9	10/2024

Wei et al. (Jan. 28, 2021, Scientific reports, 11(1), 2402, pp. 1-6).*

Lalli et al. (Epub Aug. 6, 2020, MedRxiv, pp. 1-34).*

To et al. (2020, The Lancet infectious diseases, 20(5), pp. 565-574).*

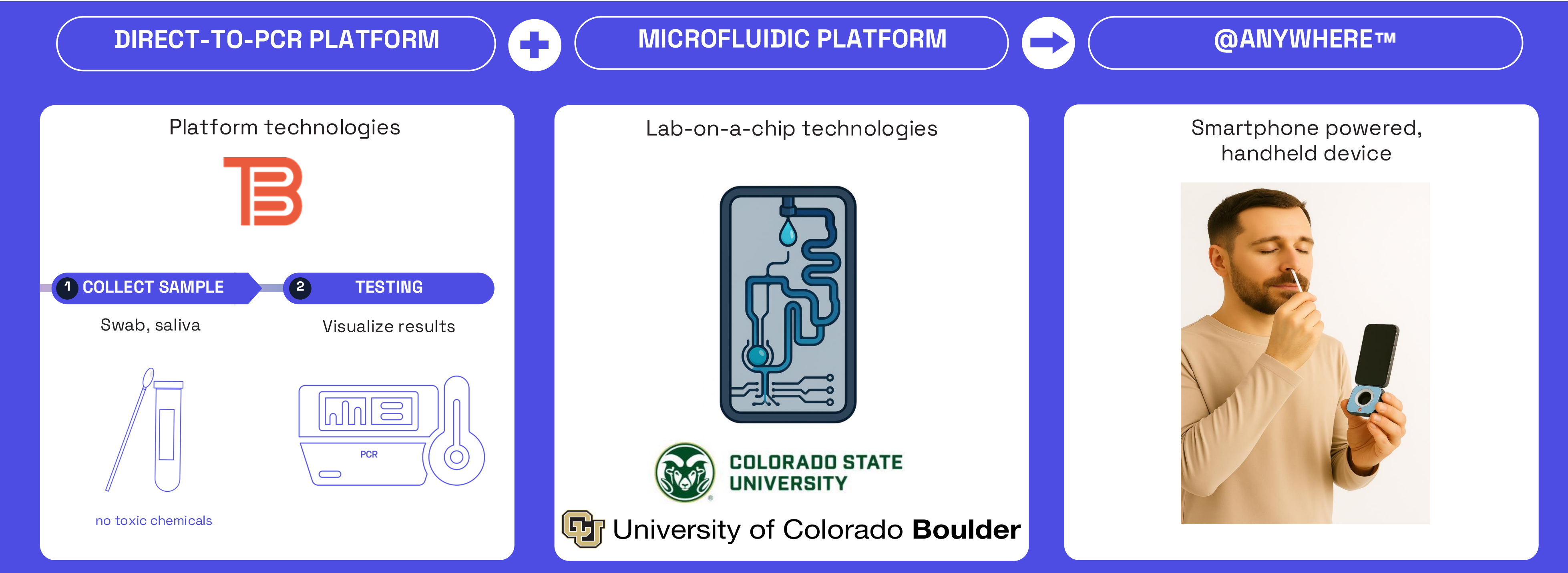
European Centre for Disease Prevention and Control, 2021, Methods for the detection and identification of SARS-CoV-2 variants, [online], Retrieved [Sep. 26, 2022] Retrieved from the Internet: [https://www.ecdc.europa.eu/sites/default/files/documents/Methods-for-the-detection-and-identification-of-SARS-CoV-2-variants.pdf], 7 pages.

FDA, Emergency use Authorization (EUA) Summary Omnigene-Oral OM-505 and OME-505 Saliva Collection Devices, Publication [online] Oct. 28, 2020, Retrieved [Sep. 26, 2022] Retrieved from the Internet: [https://www.fda.gov/media/143419/download#:~:text=

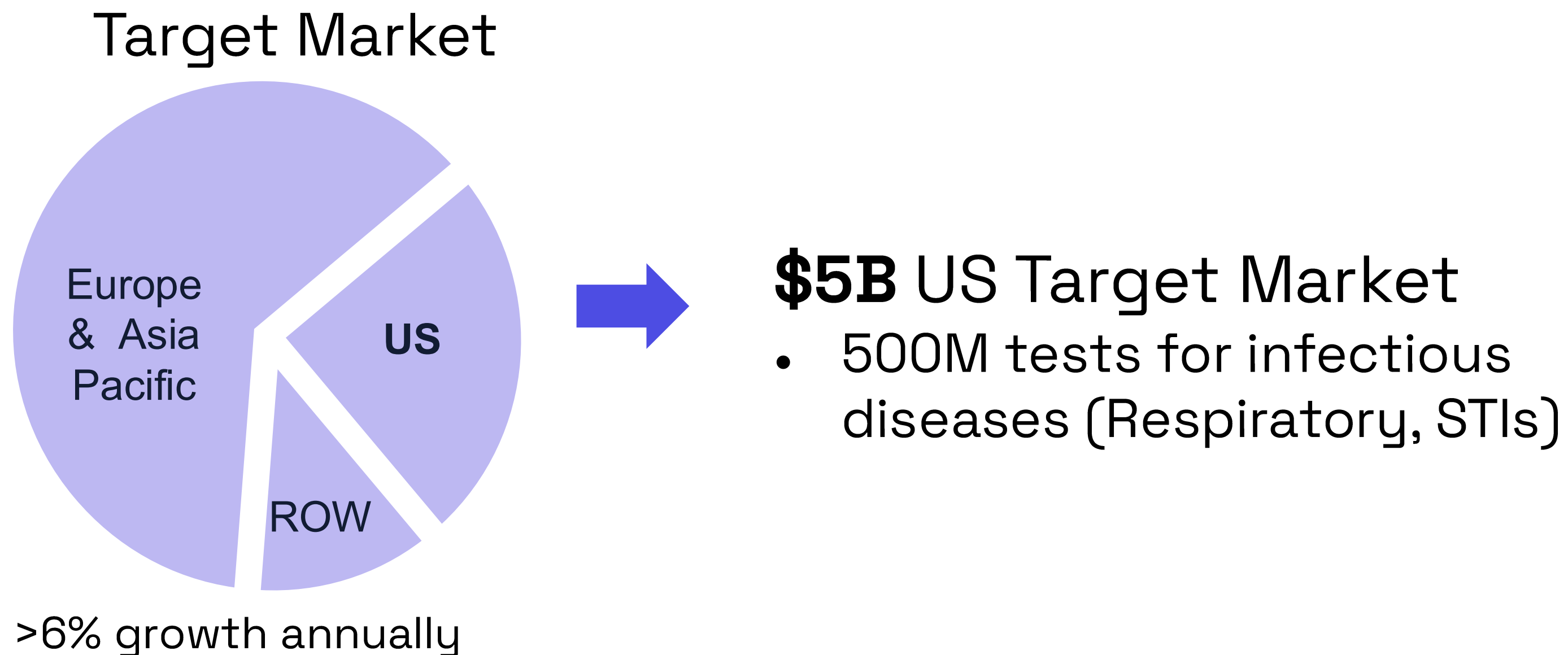
US # 12,680,130
Devices and Methods for
Extraction-Free Pathogen Testing

DELIVERING THE FUTURE OF DIAGNOSTICS

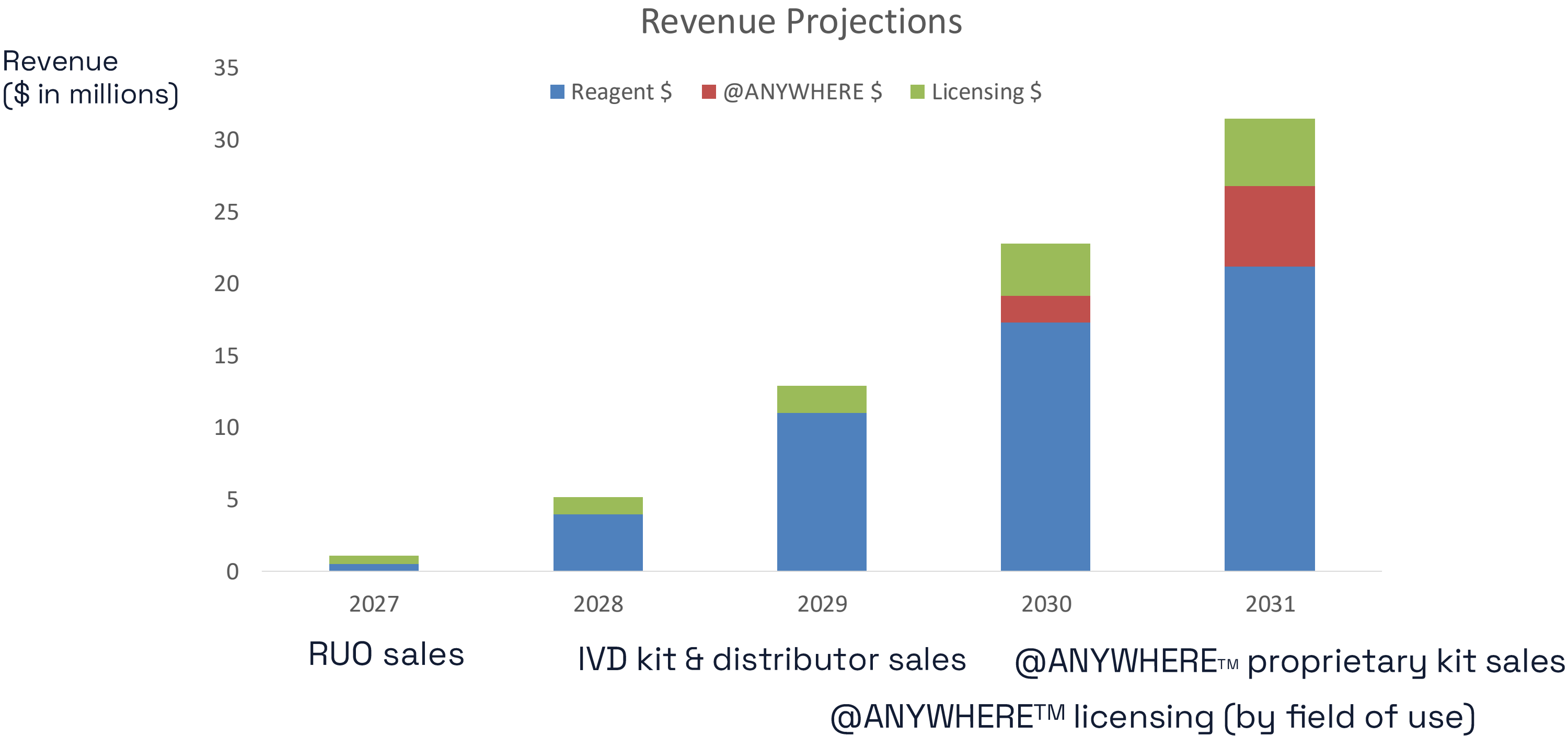
Transforming PCR testing for infectious diseases



\$17B PCR Target market: 2.5B tests



Profitable revenue growth from reagents and licensing



GO-TO-MARKET

2027

2028

2029

2030

2031

Product
Examples

@ANYWHERE™ SALES
Proprietary kits and via partners



CLINICAL LAB IVD SALES & LICENSING
(reagents, sample collection kits via partners, distributors)



NON-CLINICAL RUO SALES (DirectAmp™ buffer reagents)



COMPETITION: PCR TESTING LANDSCAPE

Lab-based



Miniaturized



Handheld



- 1st STI handheld device
- Tethered to a power cord
- Unaffordable



Direct-to-PCR



1st in raw saliva for SARS CoV-2



Transformative Biotech
(Summit Biolabs)

- 1st in swabs & saliva (SARS CoV-2)
- 1st in STIs (CT/NG) and Flu
- 1st in non-toxic sample stabilizing solution

@ANYWHERE™



Smartphone powered, handheld device



Transformative Biotech

- 1st to combine proven platform technologies:
 - Direct-to-PCR
 - Advanced microfluidics
 - Acoustic mixing

Traction: Interested Strategic Partners (12+)

Interest in @ANYWHERE and +/- direct-to-PCR chemistries

Engaged

Device

Lab

Others



WORLD CLASS EXPERIENCE IN DIAGNOSTICS, DISCOVERY & COMMERCIALIZATION

LEADERSHIP TEAM



KEVIN KRAUS
CEO



MARK KELLEHER, PHD
EVP, Research & Development



JAY FOUST
EVP, Business Development



SHELLE POURMANAFZADEH ARDABILI
VP, Business Operations



BOARD OF DIRECTORS



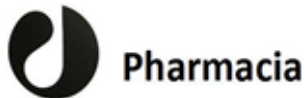
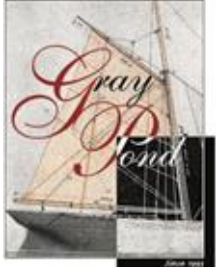
BOB BLOMQUIST
Co-Inventor,
Board Chair



BARBARA HANDELIN, PHD
Board Member



RUSS HULLET
Co-Founder,
Board Member



SCIENCE & BUSINESS ADVISORS

EXPERTS IN DIAGNOSTICS, DISCOVERY & DEVELOPMENT



CHARLES HENRY, PHD
Professor, Chemical & Biological Engineering; Chemistry, Advisor



BRIAN GEISS, PHD
Professor, Microbiology, Immunology & Pathology, Advisor



DAVID DANDY, PHD
Professor, Chemical & Biological Engineering, Advisor



XIAOYUN DING, PHD
Associate Professor, Mechanical Engineering, Co-Inventor @ANYWHERE™



MICKEY URDEA, PHD
Scientific Advisory Board



TONY SHUBER
Scientific Advisory Board



MIREILLE KAMARIZA, PHD
Scientific Advisory Board



DUSH RAMACHANDRAN
Strategic & Information Technology Advisor



OUR ASK & USE OF FUNDS

\$2.75M

1st tranche of \$6M raise

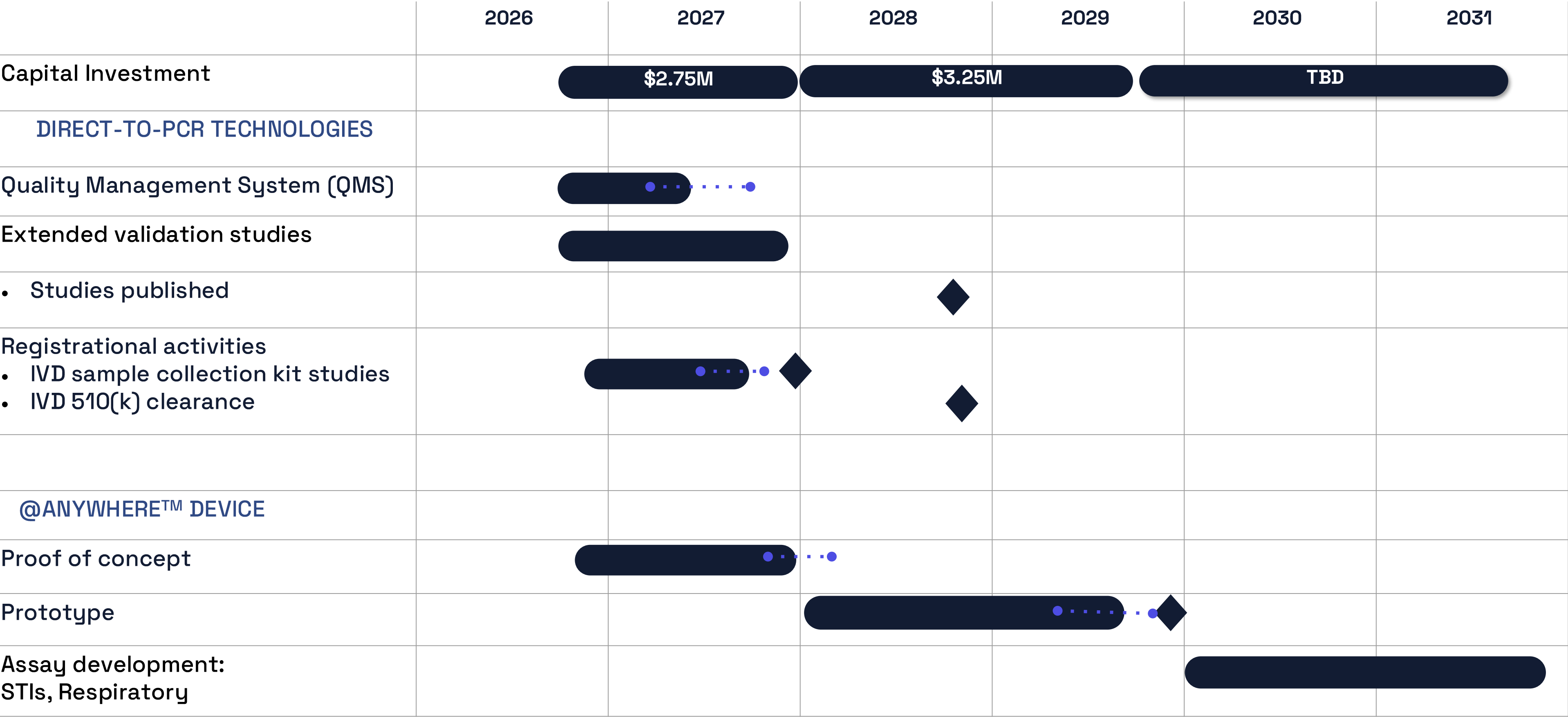
Actions

- Broaden data in direct-to-PCR for STIs
- Perform 510(k)-sample collection kit studies under quality management system
- Develop @ANYWHERE™ proof of concept
- Drive partnership discussions
- Prosecute patents and general operations

Milestones

- STI data package completed
- 510(k)-ready sample collection kit
- @ANYWHERE™ proof of concept
- Revenue from customers & OEMs
- Positioned for growth

USE OF FUNDS



PCR testing for infectious disease @ANYWHERE™

TEAM & ADVISORS

- ✓ Proven in diagnostics, discovery and commercialization

ASK

\$2.75M
1st tranche of
\$6M raise

CLINICALLY PROVEN

- ✓ 590,000+ clinical tests
- ✓ Licensing interest & clear path to monetize

IP

- ✓ Landmark US patent #12,344,889
- ✓ Notice of allowance
 - 4 patents pending

MILESTONES

- 510(k)-ready sample collection kit
- @ANYWHERE™ proof of concept
- Customer / OEM sales

IMPACT

- ✓ Deliver @ANYWHERE™ infectious diseases testing and save lives





Transformative
Biotech

GET IN TOUCH!

Kevin Kraus, CEO

(M): +1 (720) 329-3455

kevin@transformative-bio.com

Boulder, CO 80304

transformative-bio.com

Connect on [LinkedIn](#):



Direct-to-PCR: proven equivalent to conventional PCR

Summit Biolabs tests	DISEASE	SAMPLE TYPE	POSITIVE PERCENT AGREEMENT	NEGATIVE PERCENT AGREEMENT
CLINICAL STUDY				
COVIDFast	COVID-19	swab	100%	100%
COVIDFast	COVID-19	saliva	98.8%	99.4%
PROOF OF CONCEPT STUDY				
FLUVIDFast	COVID-19	swab	92.9%	99.2%
	COVID-19	saliva	92.0%	99.6%
	Flu	swab or saliva	100%	—

Equivalent PCR performance

Published* benchmarking vs. extraction-based PCR

What we tested

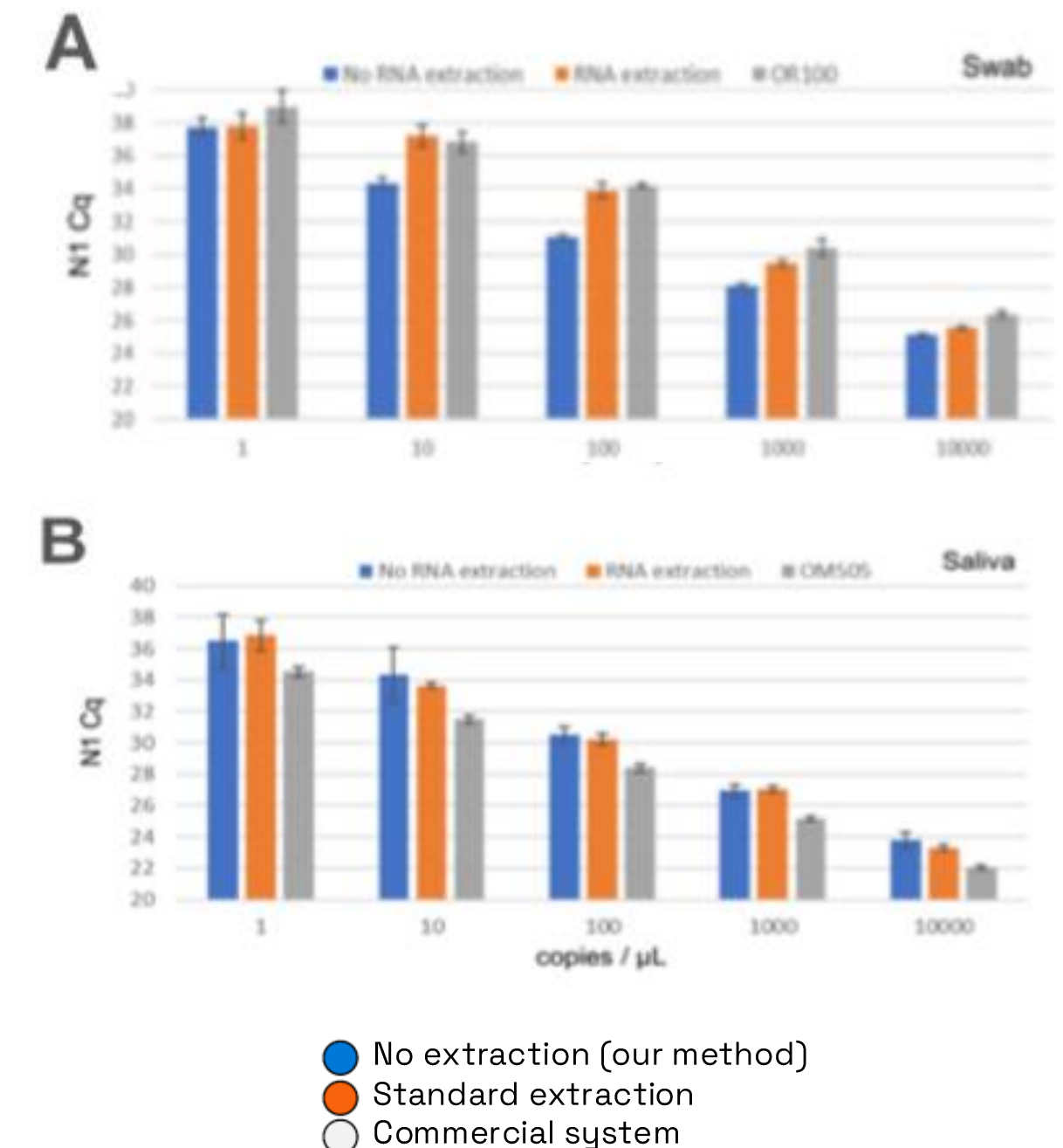
- SARS-CoV-2 in swab and saliva across viral loads

What we compared

- DirectAmp™ (no extraction) vs. standard extraction vs. commercial system

What we found

- Equivalent Ct values across sample types and viral loads
- Maintained sensitivity (LoD) at low copy levels
- Consistent, reproducible performance



Showing copies/ μ L (x-axis) of heat inactivated SARS-CoV-2 spiked into samples collected in cryovials or commercial collection device. Cryovials were extracted (orange) and not extracted (blue) commercial device was extracted grey) Panel A swabs, Panel B saliva. (from Qiu et al J biotechnol biomed 2024)

* Qiu Y, et al. *Journal of Biotechnology & Biomedicine*. 2024. Ct (cycle threshold): number of cycles needed to detect the virus, lower = more virus. LoD (limit of detection): the lowest amount of virus the test can detect.

Strategics acquire POC platforms that reduce complexity, time-to-result, or cost

Company	Lex Dx	Curiosity	Iquum	Mesa	BioFire	Alere
Revenue	Early Revenue	Pre-Revenue	~\$25M (LIAT)	\$45M	~\$70M	\$2.5B
Multiple	High	High	>10x	>10x	6 - 7x	2 - 3x*
Exit Value	~\$100M	\$130M	\$450M**	\$550M**	\$485M	\$5.3B
Acquiror						
Year	2026	2022	2014	2021	2014	2017

* Equity Value / Revenue multiple; ** = including milestone payments

How CU Innovations' \$100K Commitment Unlocks the Next Stage of Growth

Conditional \$100K commitment serves as the lead investment to complete the remaining \$400K financing tranche, accelerating commercialization while positioning Transformative Biotech for future non-dilutive funding and institutional financing.

Allocation	Investment Priority	Key Milestone
\$250K	DirectAmp™ product evaluation studies	3 customer evaluations completed and STI data package extended
\$100K	Patent prosecution & portfolio expansion	Advance two patent families (direct-to-PCR and @ANYWHERE)
\$50K	Data generation & technical validation	Generate partner and grant-supporting datasets
\$75K	Operations & commercialization	Secure lead investor and 2 - 3 co-investors / partners
<u>\$25K</u>	Partnerships and legal support	Advance licensing and commercial readiness

**\$500k
Total**

Expected Outcome: Complete key technical, commercial, and IP milestones to support a planned **\$6M institutional financing in 2027.**

Non-Dilutive Funding Strategy: Current Opportunities (\$600k) & Next Milestones

Program	Next Milestone	Target Date	Potential Funding (T-Bio)
OEDIT Advanced Industries	Submit application	Aug. 27, 2026	\$250K
DoD CDMRP Tick-Borne Disease	Submit pre-application with Nexogen	Jul. 22, 2026	\$100K
NIH SBIR/STTR	Submit Phase I proposal with CSU	Aug 29, 2026	\$130K
Swine Flu Grant	Build full proposal based on review	Q3-Q4 2027	<u>\$120K</u>

\$600k
Total current non-dilutive
funding opportunity

INTELLECTUAL PROPERTY DETAILS

2 issued U.S. patents, 5 pending applications

Status	Name	Note:
1 issued U.S. patent	#12,344,889 Extraction-Free Pathogen Testing	Issued by USPTO on July 1, 2025. Covers core chemistry and workflow (composition of matter and method). Exclusive global license agreement and FTO from co-inventor, CU Anschutz
1 U.S. application allowed	US 17/864,160 – Extraction-Free Pathogen Testing (Multi-Matrix)	Notice of allowance received March 13, 2026. Expands coverage to additional sample matrices, including swab and saliva.
U.S. patent application pending	US 17/244,333 – Saliva Viral Testing	Pending application to expand matrix coverage.
U.S. patent application pending	US 18/559,120 – Variant Detection (PCR)	Reinforces the chemistry across SARS-CoV-2 variant detection workflows.
U.S. patent application pending	US 17/972,111 – Extraction-Free STI Testing (PCR)	Bacterial detection with STI swabs. Supports self-collection and at-home diagnostics.
U.S. patent application pending	US 19/016,825 – Acoustic Microfluidics PCR Device	Pending application directed to acoustic microfluidic PCR device innovations @ANYWHERE™ device-level innovation. Co-option license agreement from University of Colorado Boulder (through Feb 1, 2027)
U.S. patent application pending	US (# pending) SYSTEM AND METHOD FOR EXTRACTION-FREE HYBRID NUCLEIC ACID ANALYSIS	Pending application directed to microfluidic PCR device innovations @ANYWHERE™ device-level innovation.

Additional jurisdictions include Europe, Canada and Japan, further information available upon request under NDA.