Transformative Biotech

Transforming PCR testing for infectious diseases @ANYWHERE™

Kevin Kraus
CEO

June 2, 2026

THE PROBLEM

14M deaths

annually from infectious diseases

Lack of access

to diagnostic tests & treatment

Unmet need

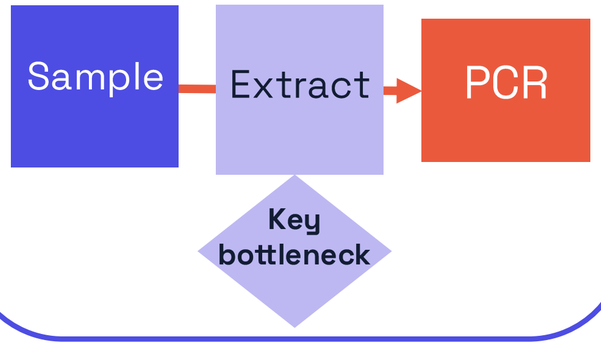
rapid, accurate, affordable PCR tests @ANYWHERE™

PCR is the gold-standard for infectious diseases testing

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

Sample collection has toxins

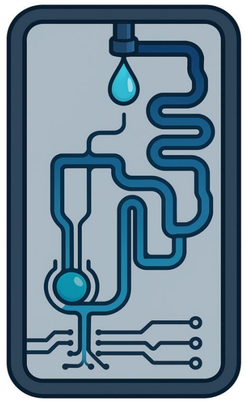
Complicated tests & equipment



High cost & skilled staff required

Transforming PCR testing for infectious diseases @ANYWHERE™

Direct-to-PCR chemistries
& Sample collection



Microfluidics
& Acoustic mixing

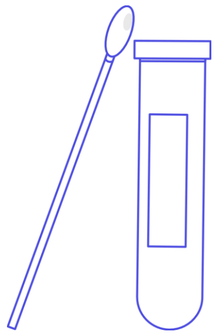
Handheld, smartphone
powered testing device

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

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

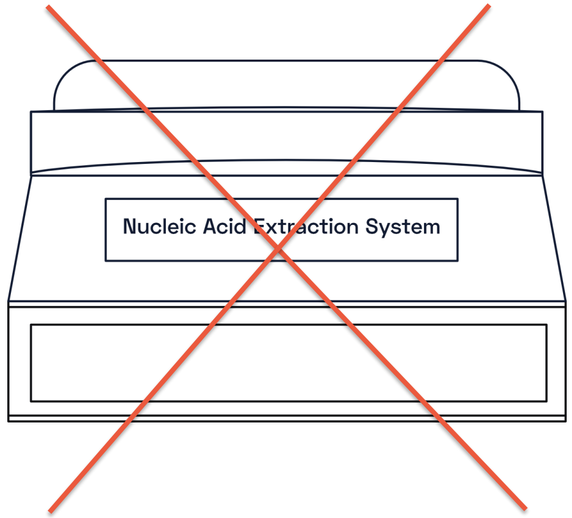
1 COLLECT SAMPLE

Mucosal swab, saliva



no toxic chemicals

2 SAMPLE EXTRACTION



3 TESTING

Amplify, test DNA/RNA

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)

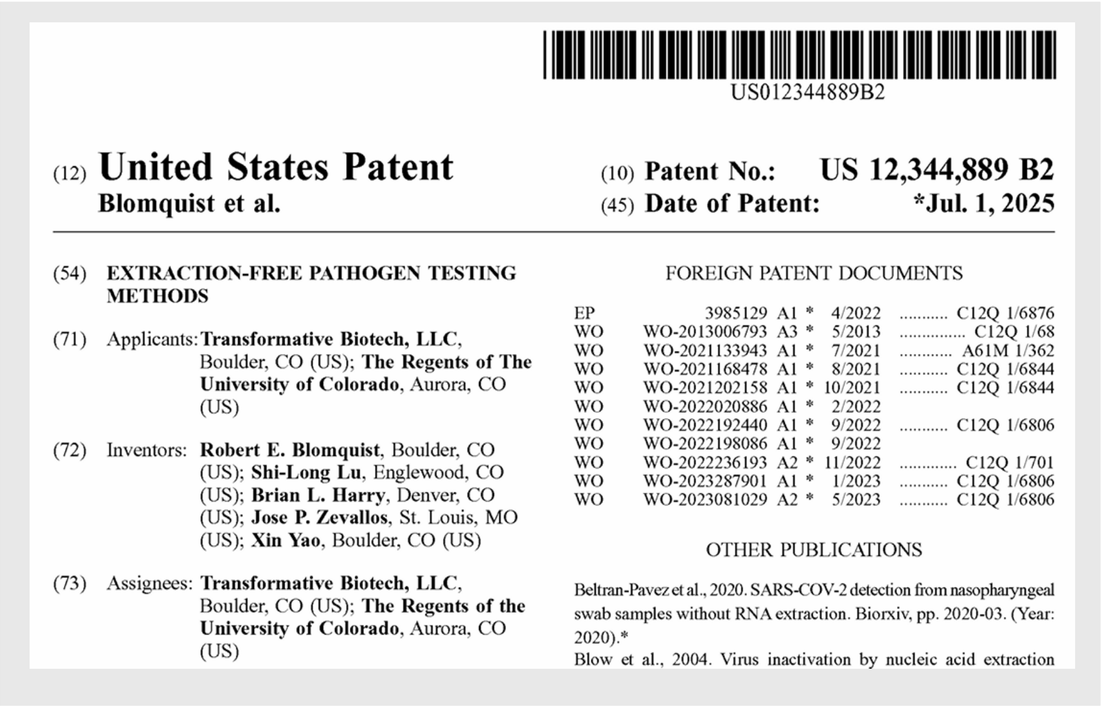
Proof of Concept

- Flu + COVID
- STIs (CT/NG)

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

Patent Estate:

- 1 patent issued
- 1 notice of allowance
- 4 patents pending



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		
WO	WO-2022192440 A1 *	9/2022	.....	C12Q 1/6806
WO	WO-2022198086 A1 *	9/2022		
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).*

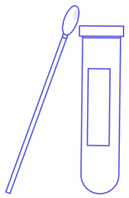
Blow et al., 2004. Virus inactivation by nucleic acid extraction

Transforming PCR testing for infectious diseases

DIRECT-TO-PCR PLATFORM + **MICROFLUIDIC PLATFORM** → **@ANYWHERE™**

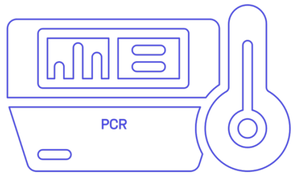
Platform technologies

1 COLLECT SAMPLE
Swab, saliva

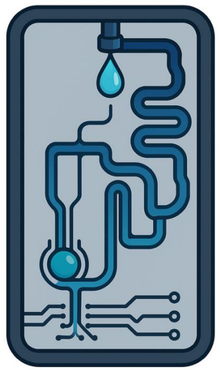


no toxic chemicals

2 TESTING
Visualize results



Lab-on-a-chip technologies



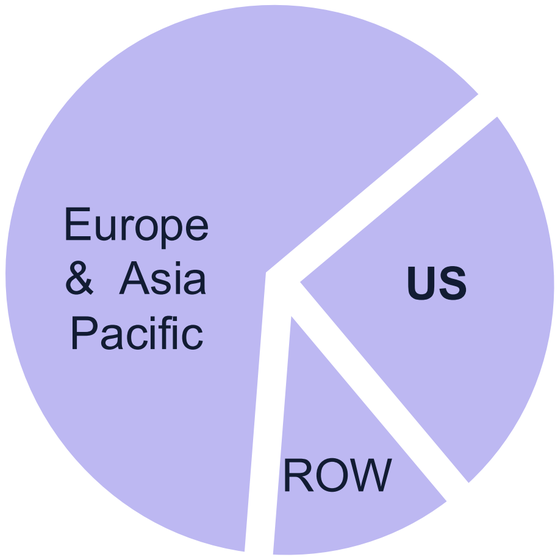
COLORADO STATE UNIVERSITY

University of Colorado **Boulder**

Smartphone powered, handheld device

$17B PCR Target market: 2.5B tests

Target Market

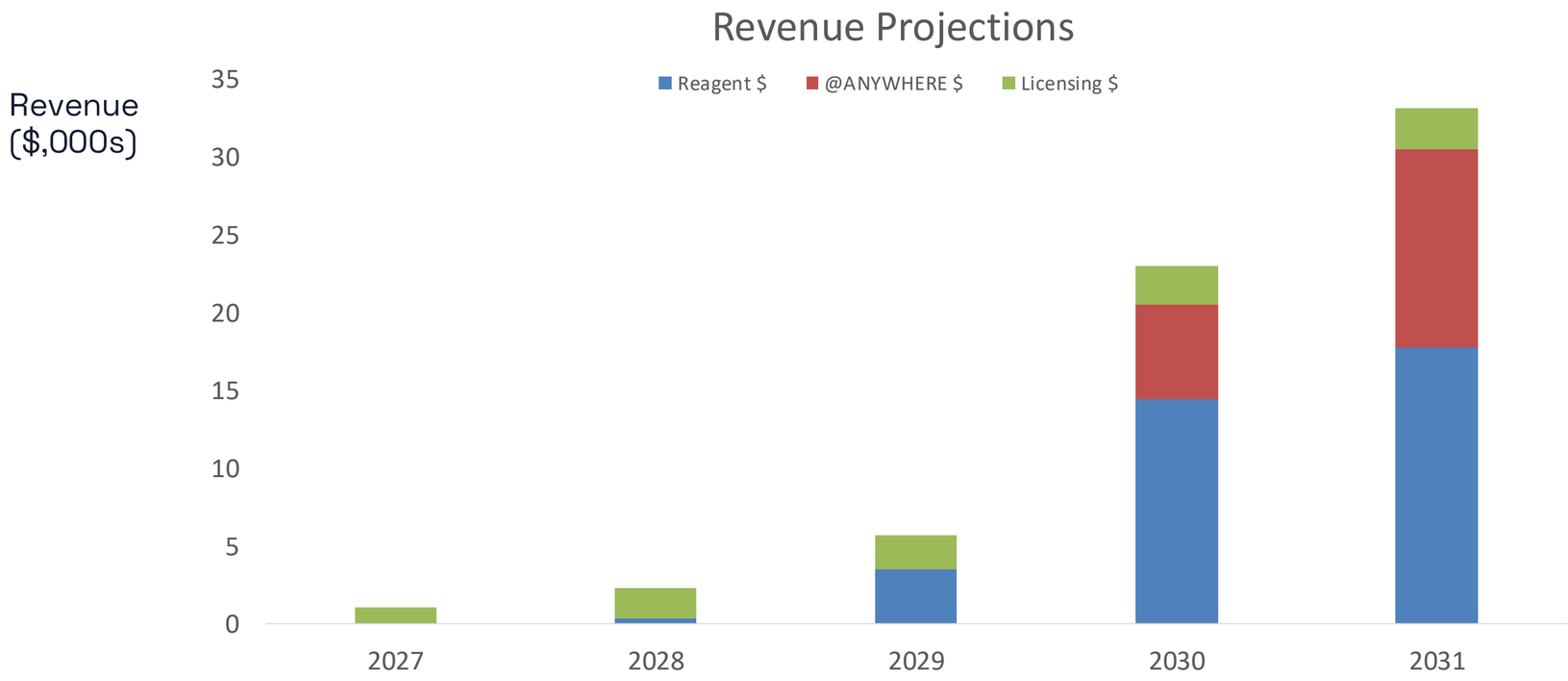


>6% growth annually

$5B US Target Market

- 500M tests for infectious diseases (Respiratory, STIs)

Profitable revenue growth from reagents and licensing



RUO sales

IVD kit & distributor sales

@ANYWHERE™ proprietary kit sales

@ANYWHERE™ licensing (by field of use)

GO-TO-MARKET

2027	2028	2029	2030	2031

@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)

Product Examples

COMPETITION: PCR TESTING LANDSCAPE

Lab-based

Roche

Abbott

QIAGEN HOLOGIC

Miniaturized

Roche

Cepheid A better way.

BIOFIRE BIOMÉRIEUX

Handheld

visby medical

- 1st STI handheld device
- Tethered to a powercord
- Unaffordable

Direct-to-PCR

SALIVADIRECT™

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

WORLD CLASS EXPERIENCE IN DIAGNOSTICS, DISCOVERY & COMMERCIALIZATION

LEADERSHIP TEAM

KEVIN KRAUS
CEO

THIRD ROCK VENTURES
Genentech
A Member of the Roche Group
Roche
VENTANA MEDICAL SYSTEMS, INC

MARK KELLEHER. PHD
EVP, Research & Development

curative
DISCOVERY LIFE SCIENCES
Complete GENOMICS
23andMe
affymetrix

JAY FOUST
EVP, Business Development

Bristol Myers Squibb
PGDx
labcorp
Roche
RESEARCH CORPORATION TECHNOLOGIES

SHELLE POURMANAFZADEHARDABILI
VP, Business Operations

Summit Biolabs
PARSONS

BOARD OF DIRECTORS

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Co-Inventor, Board Chair

ILLUMEN THERAPEUTICS
Summit Biolabs
Sinfonia Biotherapeutics
wallac AN EG&G COMPANY
Pharmacia

BARBARA HANDELIN, PHD
Board Member

The Ninety-Ten Institute
audacity therapeutics
REDPATH integrated pathology
Integrated GENETICS

RUSS HULLET
Co-Founder, Board Member

Summit Biolabs
Gray Pond Associates LLC
Real Estate Restoration and Development
ROCKY MOUNTAIN RESTORATIONS

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

COLORADO STATE UNIVERSITY

BURST DX

ACCESS SENSOR TECHNOLOGIES
Sampling made simple.

BURST DX

CENTER FOR VECTOR-BORNE INFECTIOUS DISEASES

BURST DX

Sandia National Laboratories

University of Colorado Boulder

Biomedical Microfluidics Lab
COLLEGE OF ENGINEERING AND APPLIED SCIENCE

Halteres Associates

BAYER

CHIRON
Acquired by Novartis

TETHYS

Nabsys

EXACT SCIENCES

UCLA

BROAD INSTITUTE

ORS GROUP

CB

THE Net Momentum
Experience. Insights. Results

OUR ASK & USE OF FUNDS

$2.75M

1st tranche of $6M raise

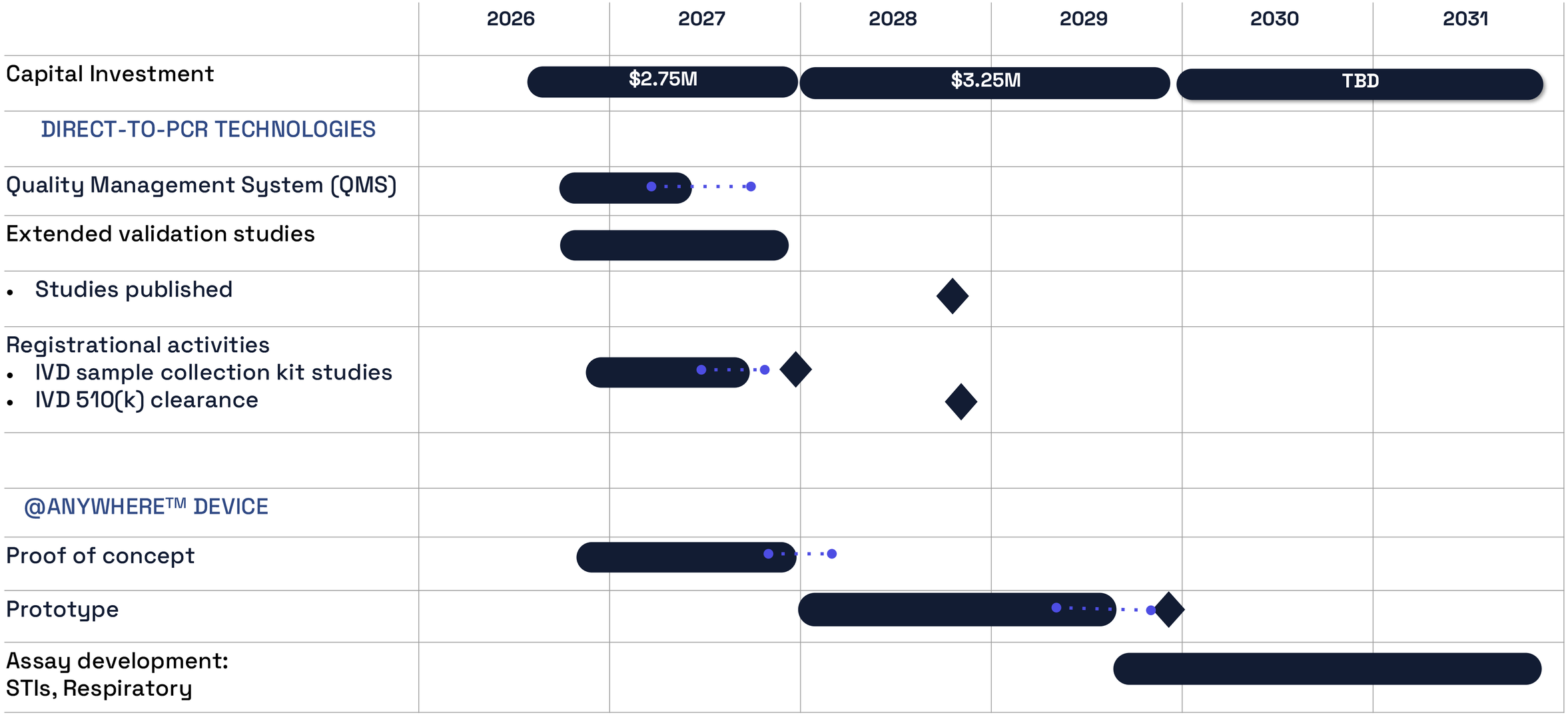
Actions

- 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


2026
2027
2028
2029
2030
2031
Capital Investment
$2.75M
$3.25M
TBD
DIRECT-TO-PCR TECHNOLOGIES
Quality Management System (QMS)
Extended validation studies
• Studies published
Registrational activities
• IVD sample collection kit studies
• IVD 510(k) clearance
@ANYWHERE™ DEVICE
Proof of concept
Prototype
Assay development:
STIs, Respiratory

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 deseases testing and save lives

Transformative Biotech

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

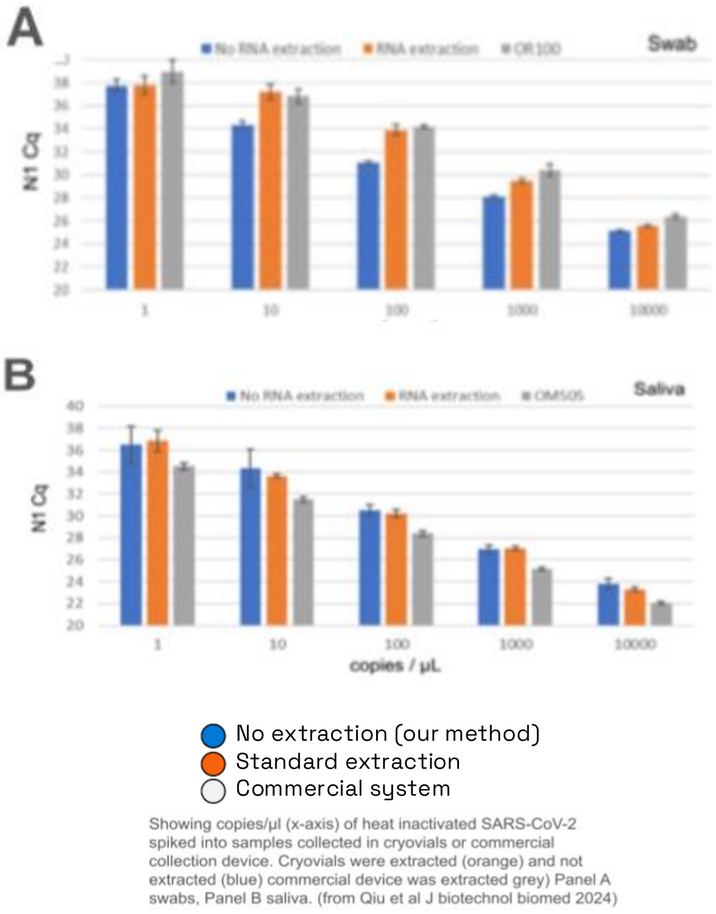
- SARS-CoV-2 in swab and saliva across viral loads

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/µl (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.

Sample collection media for PCR testing lack our breakthrough technologies

Copan

BD

ThermoFisher SCIENTIFIC

LONGHORN™ VACCINES & DIAGNOSTICS LLC

Transformative Biotech

BREAKTHROUGHS

- No inhibitor chemicals to PCR
- Stabilizes mucousal swab and saliva samples
- Non-toxic for self-collection (no alcohol, GITC*) with >7 day stability @40 C)

*GITC (guanidinium isothiocyanate) is a toxic chaotropic agent used in many conventional nucleic-acid extraction buffers and sample media kits.

Incumbent molecular systems are stuck in centralized labs due to their complexity

Roche

Cepheid
A better way.

Abbott

QIAGEN

ThermoFisher SCIENTIFIC

Transformative Biotech

ENABLING ALL COMPANIES TO IMPROVE THEIR DEVICES

- No sample purification required
- Reduces complexity and cost
- Shorten time to result
- Reduces overall device size

POC manufacturers have “luggable” high-cost devices … not @ANYWHERE™ testing

Roche

Cepheid
A better way.

binx

visby medical

Transformative Biotech

ENABLING ALL COMPANIES TO IMPROVE THEIR DEVICES

- No sample processing required
- Reduces complexity and cost
- Reduces test time
- Enables smaller device options

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	QuidelOrtho™	BIO-RAD	Roche	ThermoFisher SCIENTIFIC	BIOMÉRIEUX	Abbott
Year	2026	2022	2014	2021	2014	2017

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