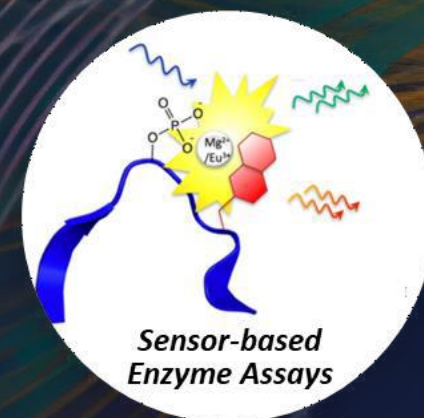




# Investor Presentation

Empowering Next-generation  
Kinase Drug Discovery &  
Development

**ERIK M. SCHAEFER, Ph.D.**  
Co-founder, CEO & CSO



Proprietary Life Science  
Assay Tools

We are a proven growth company with a world-class interdisciplinary team in assay technologies, software, and kinase drug discovery.

Our validated data-rich kinetic assays are **accelerating improved drug discovery!**

**(e.g., Think Polaroid vs Go-Pro)**



*PhosphoSens<sup>®</sup>*



MARKET OPPORTUNITY



GAME-CHANGING SOLUTION



CURRENT MOMENTUM



WHAT'S NEXT

# AQT: Leveraging Our People and Innovative Technology for Improved Kinase Drug Discovery

Over \$1B

**TOTAL ADDRESSABLE MARKET**  
For core kinase technology for top 5 disease indications

\$12MM

**INSTITUTIONAL INVESTMENT ROUND**  
To accelerate already strong revenue growth

\$56MM to >\$100MM

**5-YEAR REVENUE POTENTIAL**  
In core business with upside from expanding into diagnostics & new target classes

Multiple Potential Exits

**MARKET PARTNERS OR ACQUIRORS**

## Innovative Growth Company

with enabling products and services supporting drug development. Our focus is on kinase and phosphatase enzymes, which comprise more than 30% of all FDA-approved drugs in the last 3 years.



## Revolutionary PhosphoSens® Platform

fits seamlessly into existing workflow addressing customer needs and limitations with competitor products to speed the development of improved drugs at reduced cost, creating a new gold standard.



## Strong Leadership

with visionary founders and a talented team with proven success translating ground-breaking science into commercialization.



## Exclusive Licensee of Proprietary MIT Technology

invented by co-founder and renowned scientist Dr. Barbara Imperiali, with 10 issued and 1 pending patents being expanded by AQT.



## Accelerating Revenue Growth

from rapid adoption by Pharma, Biotech, CROs and academic labs. September 2023 year-to-date revenues up 75% yr/yr with 3-year CAGR of 56%. On target to achieve 2023 revenue goal of \$6MM.



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CURRENT MOMENTUM



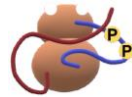
WHAT'S NEXT



# Protein Kinases: A Wealth of Growth Potential



## 518 Total



Protein kinases and these enzymes control most all cell functions. They regulate normal physiology & malfunction in **>400 diseases**.

AQT technology provides a quantitative real-time measure of kinase enzyme activity.

## Kinase Inhibitors (KIs)



Block the function of kinases and these drugs prevent or halt disease.

The 103 approved small-molecule KI's to date are primarily one type; while **KI chemistry is surging and being diversified** through AI and other avenues. Our innovative technology addresses unmet needs and provides the insight to accelerate improved drug discovery.

## Only 15%



## Targeted with Huge Upside

15% of kinases have FDA-approved inhibitors, due in large part to lack of quality & quantity of assay tests.

KI's constitute **30% of drugs approved** in the last three years and **40% of deal value** in pharma acquisitions over the last ten years, highlighting the **huge market opportunity**.



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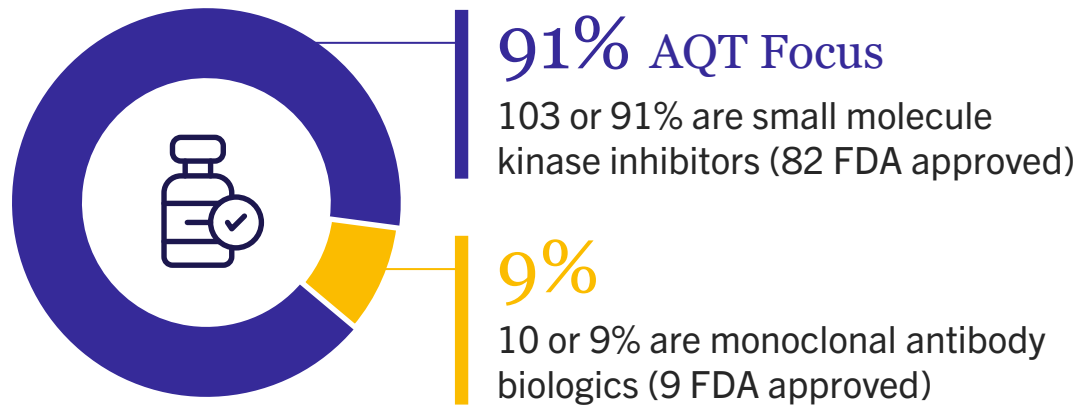
WHAT'S NEXT

# AQT Targets Large Opportunities in The Kinase Drug Development and Supporting Assay Markets

## New Drug Approvals



Currently 113 approved drugs target kinases with 91 or 81% being FDA approved:



- Strong focus on Oncology & Inflammation with increasing interest in other disease areas.
- \$1B - \$2B market for products and services for testing inhibitors in preclinical drug R&D.



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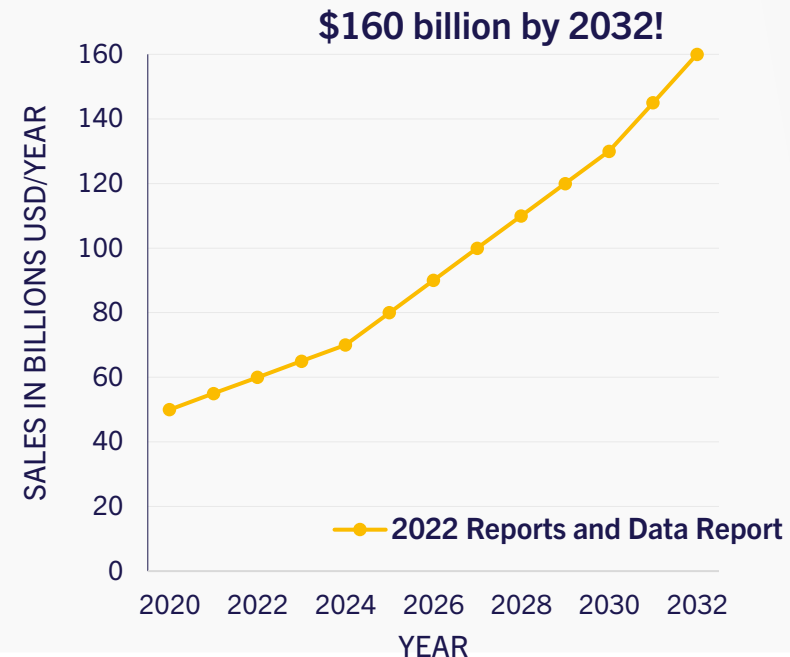


CURRENT MOMENTUM



WHAT'S NEXT

## Growth in Global Kinase Inhibitor Market 2020-2032 (10% CAGR)




# Next-Gen Kinase Inhibitors Drive Billions in Business Activity

FiercePharma


Next-gen kinase inhibitors march toward market- and spur billions in M&A.

by Arlene Weintraub / Sep 17, 2020


Deals & Fundraising




Takeda partners with Hutchmed for colorectal cancer kinase drug fruquintinib for **\$400M** up front & **\$730M** in milestones. Jan. '23




AI-driven technologies precision oncology kinase inhibitors, raised **\$100M** Series B (Oct. '23), **\$53M** Series A (2021, when called Entos)



\$210M Private Financing, Sept. '23; follows **\$4B** deal w/Takeda (Dec. '22), \$0.5B deal w/Eli Lilly, previous private financings (\$125M, Sept. '22; \$105M, Jul. '21), \$43M Series B, Mar. '15; \$24M Series A, Jun. '11)




Acquisitions




\$1.7B

CTI




\$4.1B

Turning Point Therapeutics




\$2.7B

ARQULE



\$11.4B

ARRAY BIOPHARMA



\$8B

LOXO ONCOLOGY


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WHAT'S NEXT

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# Experienced Leadership Team



**Erik Schaefer, Ph.D.**  
CEO, CSO & Co-founder

- 25+ years experience developing and commercializing tools for the life sciences at Promega, BioSource, Invitrogen/Life Technologies, Millipore, and Thermo Fisher
- Developed >400 life science products
- Established & led high-performing teams that delivered results



**Barbara Imperiali, Ph.D.**  
CTO & Co-founder

- Inventor of the PhosphoSens technology and actively involved in the company as co-founder and CTO
- Professor of Chemistry and Biology, MIT
- Member of the National Academy of Sciences



**Gerry Labonte**  
Chief Financial Officer



**Michelle Lyles, Ph.D.**  
Vice President,  
Commercial Operations



**Earl May, Ph.D.**  
Senior Director of  
Discovery Technologies



**Jefferson Chin**  
Director of IMAS



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WHAT'S NEXT

# The Quest for Potent and Selective Kinase Inhibitors Limited by Outdated Tools, Affecting Value for Patients and Shareholders



**CURRENT DRUG DEVELOPMENT PIPELINES FOR KINASE-TARGETED THERAPIES ARE HANDICAPPED.→**

**\$2.6 Billion**  
AVERAGE COST TO DEVELOP A NEW DRUG



Process takes 10 years.

Only 3.4% of clinical trials succeed.

Efficacy can be small (~10% improvement)

## Drug Discovery

IS CONSTRAINED BOTH IN SCALE & SPEED



Workflow is siloed and inefficient and inconsistencies occur when projects pass from one stage to the next.

The 113 approved KI's are predominately one class that suffer from lack of selectivity and potency and cover only 15% of the 518 kinases and 0% of the 190 phosphatases are without approved drugs.

Lack of suitable and reliable assay tools for effective new drug development is limiting at a time when drug chemistry is surging. A direct kinetic assay solution is needed since drug action is a kinetic problem.



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WHAT'S NEXT



# PhosphoSens Solution Deep Dive – Potency Testing

01 HOW IT WORKS

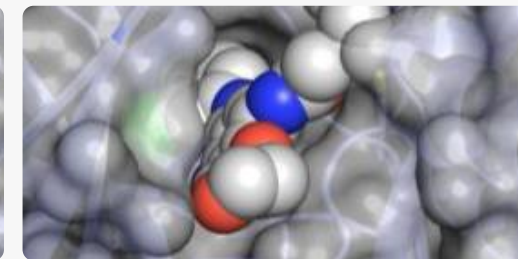
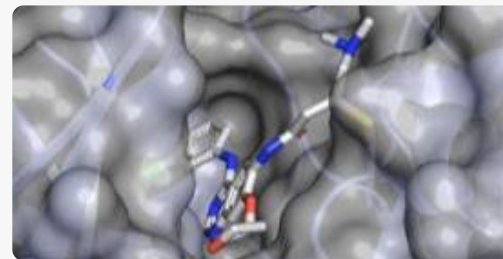
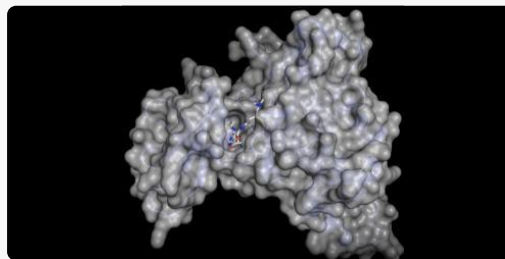
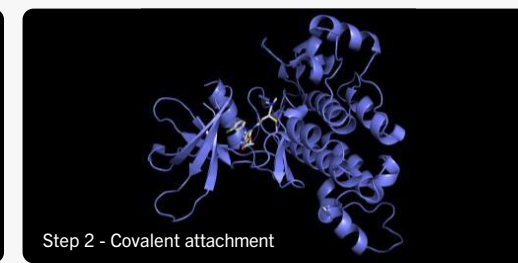
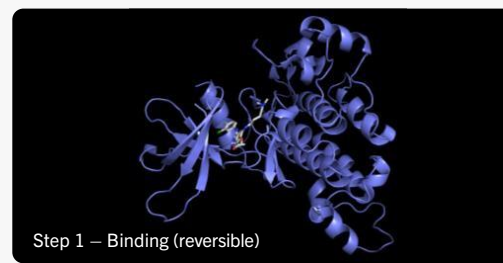
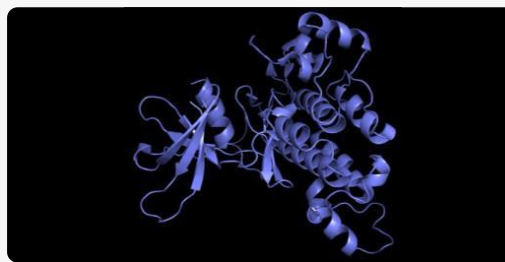


**UNDERSTANDING HOW  
DRUGS WORK IS A  
KINETIC PROBLEM. →**

02 HOW IT BEATS THE COMPETITION

03 WHERE IT MAKES AN IMPACT

## EGFR and Afatinib Inhibitor Binding and Covalent Inactivation of Kinase



Ask for “Drug inactivation of kinase video” ✨

PhosphoSens is simple and powerful. Results in better information, faster.



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WHAT'S NEXT

# Kinetic Tools Unlock Kinase Drug Discovery Potential

DRUG ACTION IS A KINETIC PROBLEM AND REQUIRES A DIRECT KINETIC ASSAY SOLUTION



**BETTER KINETIC  
TOOLS WILL  
ACCELERATE DRUG  
DEVELOPMENT,  
REDUCE COSTS,  
IMPROVE EFFICACY  
AND SELECTIVITY.→**

New Kinetic tools must allow researchers to



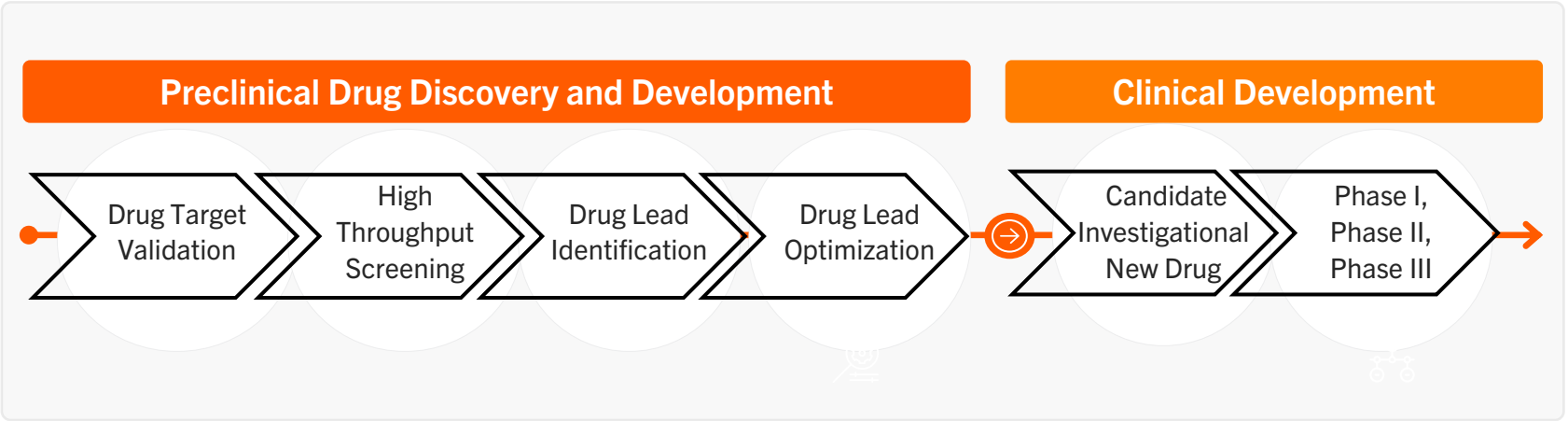
Identify promising lead compounds from the 1000's to millions of drug candidates



Conduct the specific measurements that reliably predict drug efficacy



Enable rigorous testing at all stages of the drug development process



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WHAT'S NEXT

# Systematically Leveraging Our PhosphoSens Platform

## De-Risked Foundational Tools and Increasingly Substantial Long-Term Gains



**Foundational Life Science Tool Assays for the Pre-Clinical Research Market**



Selective Sensor Peptides for Catalog Cell or Tissue Lysate Enzyme assays



Catalog Peptide-based Inhibitors



**Near Term Pillar, Series B**  
(FCST: \$56MM in 5 years)

**Core Business:** Catalog Recombinant Enzyme assays and CRO testing services with innovative PhosphoSens Technology for activity-based testing of kinases and phosphatases. Will extend to other target classes (e.g., GTPases via another Imperiali/MIT technology).

UPSIDE VIA NEAR-TERM RESEARCH TOOLS, THEN NEW MARKETS:



**Medical Diagnostics Assays**

**Medium Term Pillar**  
(10s of Millions per product)

Develop companion diagnostics and personalized medicine tools utilizing the core principles of AQT technology.



**Next-gen Targeted Therapeutics**

**Longer Term Pillar**  
(100s of Millions per deal)

Create nextgen drug leads to sell to Pharma (milestone payments & royalties).



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WHAT'S NEXT

# PhosphoSens is the Game-changing Platform for Next-gen Drug Development for Kinases and Phosphatases (>700 targets)



**WE ARE ENABLING THE  
GENERATION OF IMPROVED  
DRUGS FASTER WITH  
INNOVATIVE PRODUCTS AND  
SERVICES ALLOWING US TO  
DELIVER ACCELERATING  
REVENUE. →**

✓ **More Information with Less Effort**

✓ **Flexible, Works Across Workflow**

✓ **More Potent & Cleaner Drugs**

✓ **Reliable, De-risks Clinical Trials**

**Almost 500 assays**

**>35,000 Sensor Peptides**

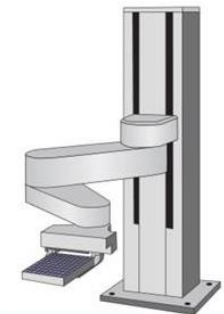
**Profiling,  $IC_{50}$ ,  $k_{inact}/K_i$ ,  
Residence Time, MOA,  $EC_{50}$**



**Catalog Kits and Bulk Reagents**



**Assay Development Services**



**Compound Testing Services**



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WHAT'S NEXT

# AQT's PhosphoSens Technology: Powerful Approach to Understand Kinase and Phosphatase Function

01 HOW IT WORKS

02 HOW IT BEATS THE COMPETITION

03 WHERE IT MAKES AN IMPACT

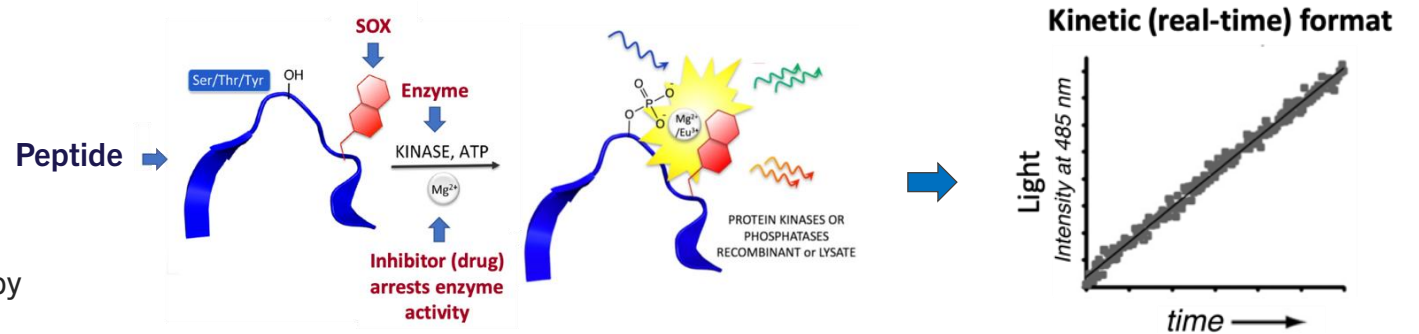
Technology directly measures kinase activity through a light signal

## PhosphoSens SOX-based Sensor Peptides (Flagship Product)

When a kinase transfers a phosphate from ATP to a SOX-peptide sensor, it generates light.

Researchers identify and develop drugs to switch kinases off by monitoring the light signal from our PhosphoSens sensors.

Can be used for protein kinases or phosphatases.



Simple add and read format. Runs on standard microplate readers with a very large install base. Sensor peptides are stable, highly reproducible and scalable for >80% gross margins.

PhosphoSens platform is simple and powerful resulting in better information and decisions



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WHAT'S NEXT





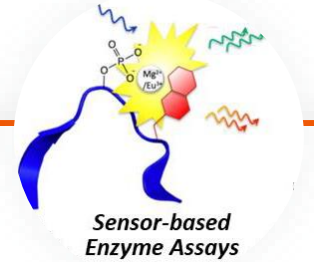












# PhosphoSens Solution Deepdive



01 HOW IT WORKS

02 HOW IT BEATS THE COMPETITION

03 WHERE IT MAKES AN IMPACT

		Desired Features that Drive Value					
Current Assay Tools	Companies	Single Step Process	Direct Real-Time Analysis	Any ATP	Complex Sample Analysis	Cost per Test	Works Across Entire Workflow
	 <div><p>Sensor-based Enzyme Assays</p></div>	✓	✓	✓	✓	\$	YES
ATP Consumption	  	×	×	×	×	\$	No
32/33P–ATP (Radioactive)	   	×	×	×	×	\$\$	No
Antibodies	   	×	×	✓	✓	\$\$\$	No
Mobility Shift Assay (MSA)	 <div>Discontinued instrument at the end of 2017 due to high maintenance issues</div>	×	✓/×	✓	×	\$\$\$	No

PhosphoSens technology provides unmatched features and benefits to deliver superior performance

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WHAT'S NEXT

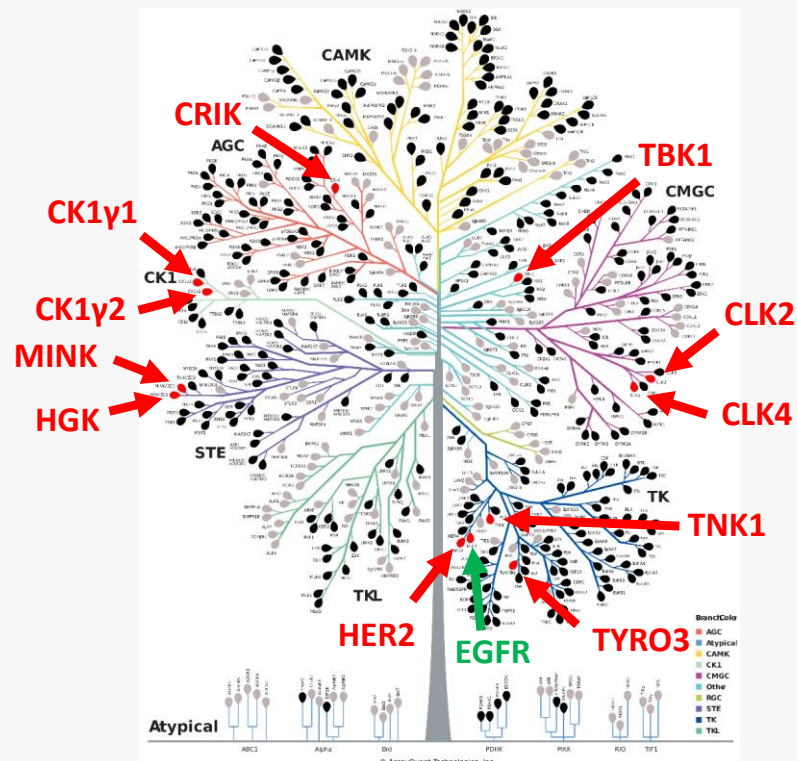
# PhosphoSens Solution Deepdive – Selectivity Profiling

## 01 HOW IT WORKS

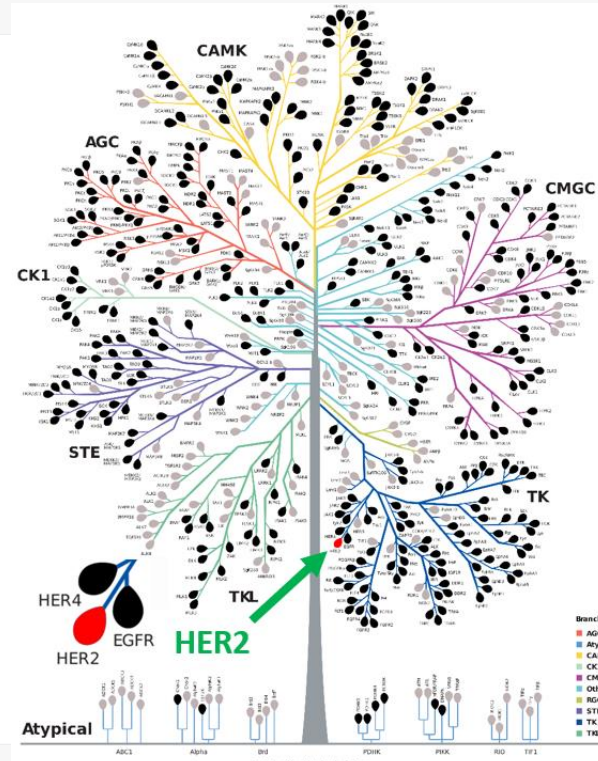
## 02 HOW IT BEATS THE COMPETITION

## 03 WHERE IT MAKES AN IMPACT

What our testing shows clients: >70% Inhibition (●) with high (physiological) ATP and 1  $\mu$ M of drug



**A. “Dirty” Compound:**  
an FDA-approved drug  
that is a 4<sup>th</sup> generation  
covalent EGFR  
Inhibitor. Shows 12 of  
13 (92%) hits are off-  
target (indeed, drug has  
severe side-effects)



**B. “Clean” Compound:**  
From AQT Client after  
working with AQT. Shows  
highly-selective compound  
(path to improved drugs)  
now in IND Enabling phase  
of development

Market-leading service providing better information, enabling better decisions and improved drugs



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WHAT'S NEXT

# PhosphoSens Solution Deepdive – Potency Testing

01 HOW IT WORKS



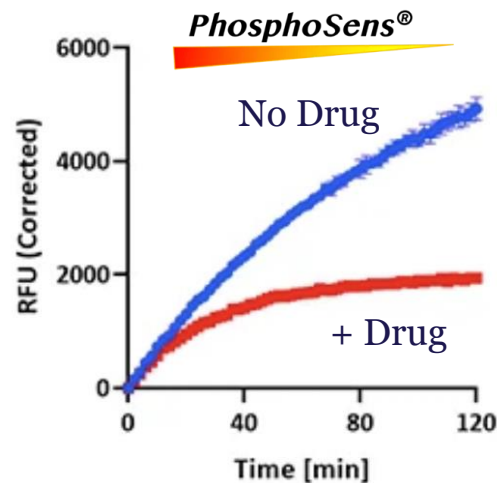
**PHOSPHOSENS  
PROVIDES A  
CONTINUOUS (KINETIC)  
ASSAY SOLUTION – A  
MOVIE INSTEAD OF A  
SINGLE SNAPSHOT. →**

02 HOW IT BEATS THE COMPETITION

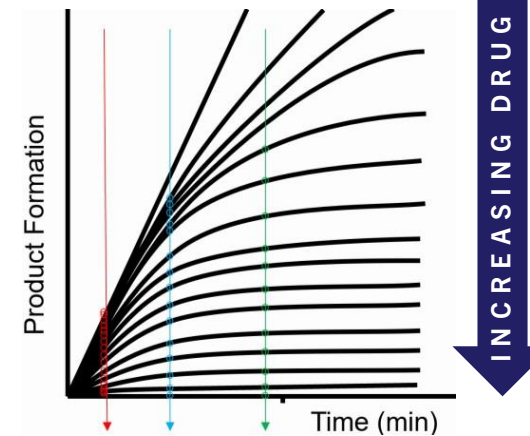
03 WHERE IT MAKES AN IMPACT

## Time-dependent Inhibition Data

### Selectivity (Profiling)



### Detailed Potency



Drug inactivation of kinase target increases over time. Allows lower & less frequent dosing of patients, so fewer side-effects.

PhosphoSens is simple and powerful. Results in better information, faster.



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WHAT'S NEXT

# PhosphoSens Works Across The Entire Workflow

**PhosphoSens®**

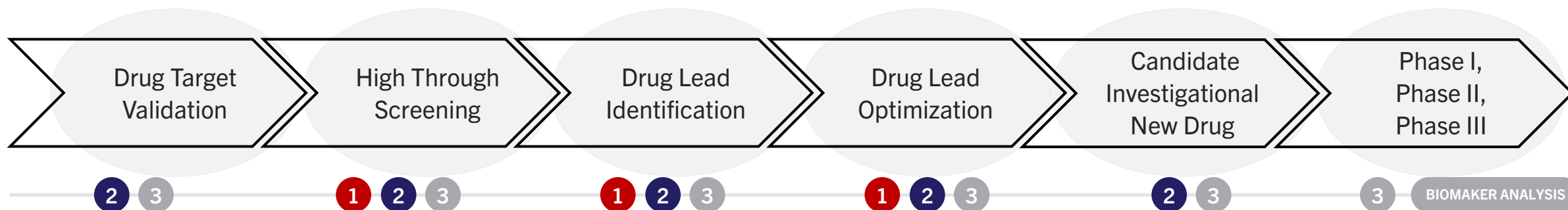
01 HOW IT WORKS

02 HOW IT BEATS THE COMPETITION

03 WHERE IT MAKES AN IMPACT

## Preclinical Drug Discovery and Development

## Clinical Development



- 1 PhosphoSens® Red**
- ✓ High-throughput Screening (HTS) & HT-SAR
- 2 PhosphoSens® Kinetic**
- ✓ Selectivity Profiling
  - ✓ Drug potency
  - ✓ Mechanism of Inhibition (MOI)

- 3 PhosphoSens® Lysate**
- ✓ Functional proteomics
  - ✓ Activity in cells or tissues
  - ✓ Normal & disease states

**Cancer Profiling**



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WHAT'S NEXT

# Commercial Strategy

## INTEGRATION OF CATALOG PRODUCTS & SERVICES

### Three Categories Reinforce Adoption & Maximize Revenue

Multiple Entry & Transition Points for Customers:

#### Catalog Products (Kits & Bulk)

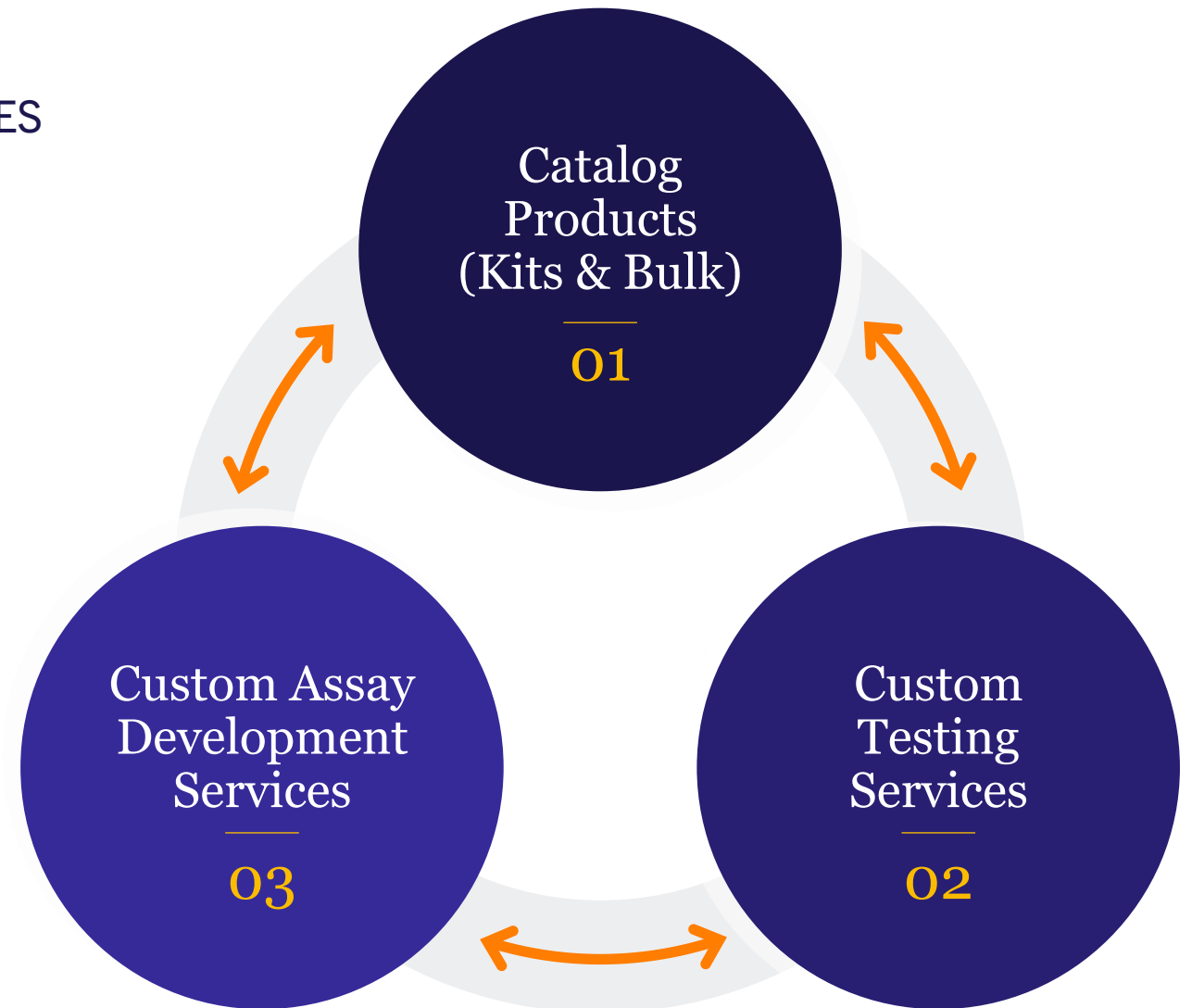
AQT sells PhosphoSens to drug developers for different applications, target enzymes and diseases.

#### Custom Testing Services (Selectivity & Potency)

Drug developers ask AQT to test their drugs with PhosphoSens to tap AQT's expertise.

#### Custom Assay Development Services

AQT creates custom PhosphoSens assays for drug developer and AQT retains IP.



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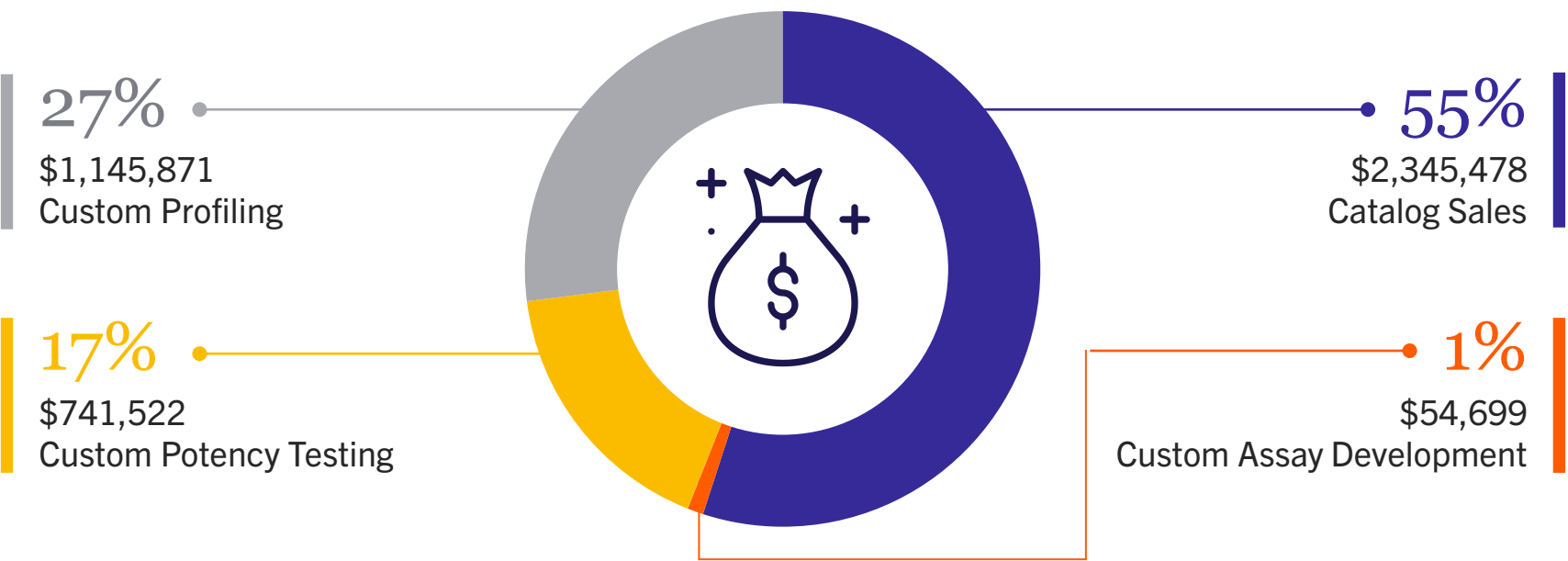
WHAT'S NEXT



# Commercial Strategy

INTEGRATION OF CATALOG PRODUCTS & SERVICES


## Total Sales by Channel Q1-Q3 2023 (\$4.3MM)




Increases customer engagement, market penetration and revenue growth

AQT provides world-class support, increasing value for our clients

Catalog products and Custom profiling are growth drivers.

 Rapid Adoption

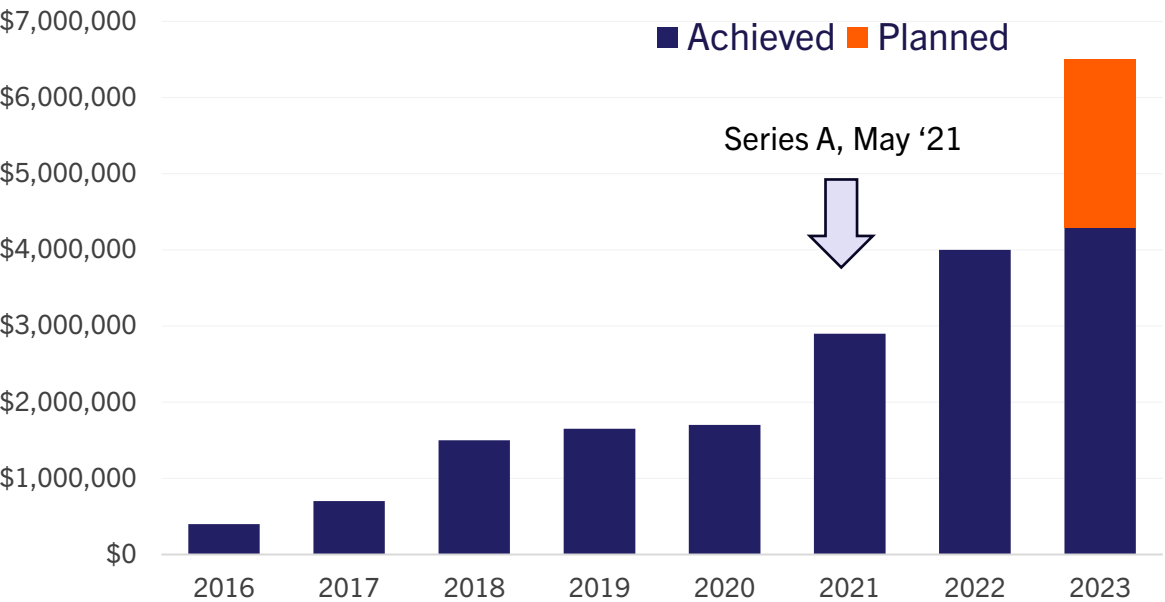
 Repeat Orders

# Commercial Traction

STRONG REVENUE GROWTH WITH POTENTIAL TO ACCELERATE

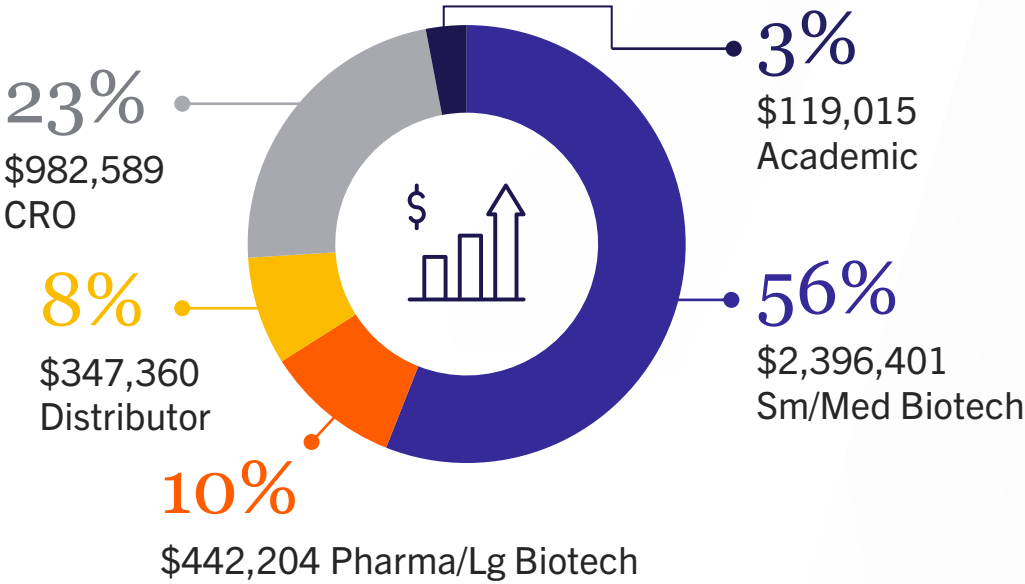
## Sales by Year

ACCELERATING REVENUE GROWTH THRU SEPTEMBER 2023 YTD  
UP 75% YR/YR WITH 3-YR CAGR OF 56%. ON TARGET TO ACHIEVE  
2023 REVENUE GOAL OF \$6MM (also \$6.5MM stretch goal).



## Total Sales by Customer Type

2023 Q1-Q3 Revenue: \$4.3MM 79 Customers



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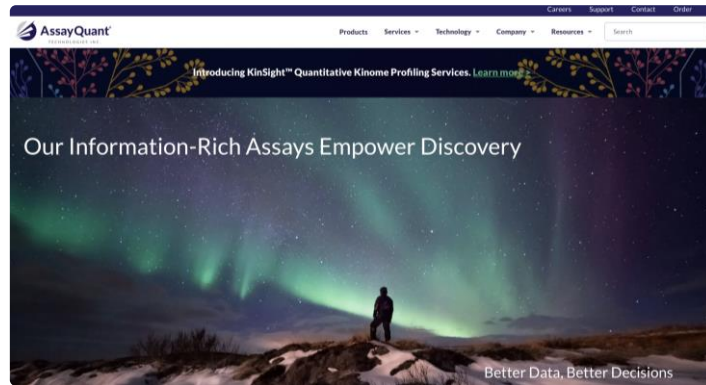
CURRENT MOMENTUM

WHAT'S NEXT

# Tactical Marketing Creatives

CUSTOMER FACING TO STRENGTHEN BRAND AND AWARENESS VIA MULTI-CHANNEL MARKETING

## Home Page



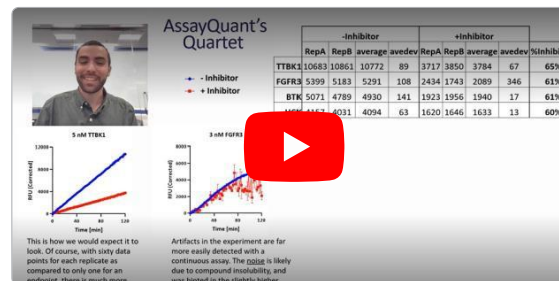
## Webinars (Technical Resources)



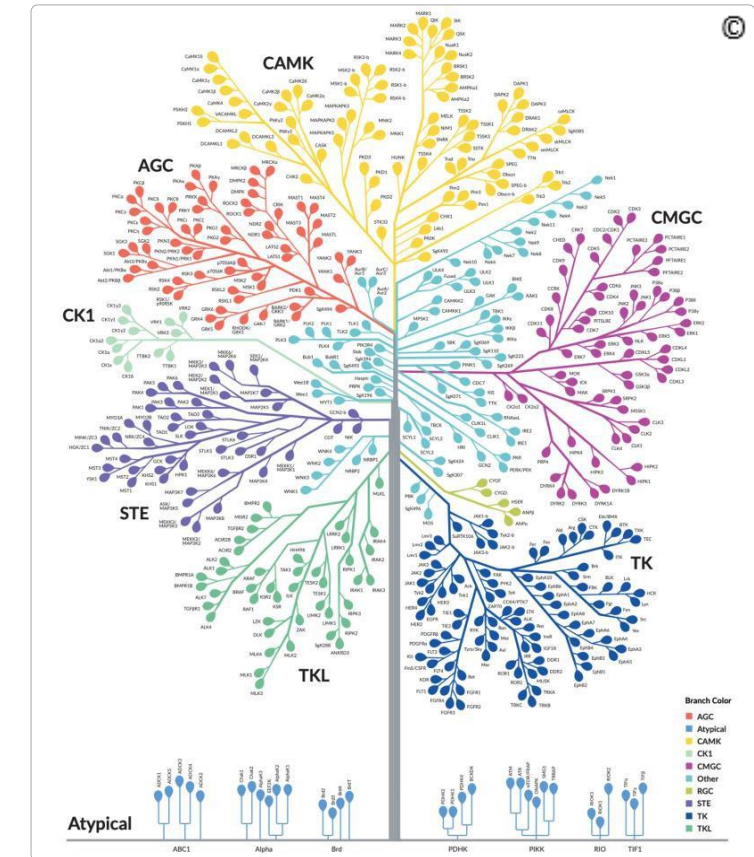
## LinkedIn (Social)



## YouTube (Social)



## AQT Kinome Tree (KinSight™ Kinome Profiling)



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WHAT'S NEXT

# Financing Considerations & Use of Proceeds









## \$12MM

**FUNDRAISE  
GOAL USE OF  
PROCEEDS. →**

Detailed 6-year budget  
available upon request

### Category

	(\$000's) Amount	% of Total
 Sales & Marketing	\$2,280	19%
 Equipment/Software*	\$2,880	24%
 Research & Development	\$1,680	14%
 Staffing for Manufacturing	\$1,440	12%
 Professional Fees & Outsourced Services General & Admin	\$600	5%
 General & Admin	\$1,200	10%
 Other Financing/Business Development	\$1,920	16%
<b>Total</b>	<b>\$12,000</b>	<b>100%</b>



**Tax Benefits for investors with QSBS:** Section 1202 of IR code protects up to 10x their investment from long-term capital gains taxes, up to \$10 million invested. For example, an investor who put in \$10 million could avoid paying federal capital gains tax on up to \$100 million. <https://carta.com/blog/qsbs/>



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WHAT'S NEXT

# Financing Considerations & Use of Proceeds

## KEY STEPS FOR 2023 - 2025 EXECUTION

### Sales & Marketing



**Key Hires:** Marketing Manager, Inside Sales, Technical Field Specialists

Launch next version of website with eCommerce via HubSpot

Create Digital Excellence in marketing with AI

### Research & Development



**Key Hires:** R&D Director, Research/Testing, Data & Modeling Scientists

Expand selective sensor peptide development using AI-supported design for analysis of cell & tissue lysates

Expand products and services for other high-profile drug target enzyme classes

Integrate AI-supported data analysis and report generation paired to Scigilian database

### Manufacturing & Custom Testing Services



**Key Hires:** Automation Engineers, Custom Testing, Mfg & QC Scientists

Integrate & expand full automation to increase capacity & margins

Option to build peptide chemistry/production in house via acquisition of co-located primary supplier or build-out



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WHAT'S NEXT



# Safe Harbor Statement & Disclosure

Certain statements contained in this presentation describing AssayQuant's technology and development program, including, without limitation, statements containing the words "expects," "anticipates," "believes," and words of similar import, constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to various risks and uncertainties that could cause actual future results and events to differ materially from those currently anticipated. Potential investors are cautioned not to place undue reliance on these forward-looking statements.

The reader agrees to the provisions set forth on those certain "disclaimers" located at <http://www.finalis.com/disclaimers> and the terms thereof are incorporated by reference as though fully set forth herein, and references therein to (i) "Company" means AssayQuant, Inc. (together with its affiliates, subsidiaries, successors and assigns, (ii) "Banker" means Tim Sheehan and team at BlackPoint Capital, and (iii) "Bank" means BlackPoint Capital.

An investment in the Company is illiquid and speculative and is subject to a risk of loss, including a risk of loss of principal.

Securities offered through Finalis Securities LLC \* Member SIPC/FINRA



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WHAT'S NEXT



# Thank You

