NAUTILUS™

BIOTECHNOLOGY

Unlocking the Power of the Proteome to Revolutionize Biomedicine

JULY 28, 2026

Safe Harbor

This presentation and the accompanying oral presentation contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others, statements regarding the size and growth of the protein analysis market; Nautilus Biotechnology's anticipated total addressable market; the performance, value and enabling nature of Nautilus Biotechnology's proteomics and proteoform analysis technology platform; statements regarding Nautilus Biotechnology's future development milestones and timing; statements regarding the timing of early access or commercial availability of Nautilus' Biotechnology's products or services, statements regarding market demand or interest in Nautilus Biotechnology's proteome or proteoform analysis platform, statements regarding the timing and nature of Nautilus Biotechnology's potential engagements with partners in proteome and/or proteoform analysis; Nautilus Biotechnology's business and operational strategy; Nautilus future financial performance and results of operations; Nautilus potential future operating expenses and cash runway; Nautilus Biotechnology's prospective products; Nautilus Biotechnology's business development plans and opportunities; Nautilus Biotechnology's anticipated customer mix and collaborations plans; and objectives of management for future operations are forward looking statements.

Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, and financial needs. All statements other than statements of historical facts contained in this presentation, including, without limitation, statements regarding our future performance and our market opportunity, could be deemed forward-looking statements.

The words "may," "will," "expect," "anticipate," "aim," "estimate," "intend," "plan," "believe," "is/are likely to," "potential," "continue" and other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from currently anticipated results, including but not limited to risks relating to the development and commercialization of our Nautilus platform; macroeconomic conditions; regional conflicts; Nautilus Biotechnology's dependence on certain sole and single source suppliers; competition; market acceptance of Nautilus Biotechnology's current and potential products; Nautilus Biotechnology's ability to manage the growth and complexity of its organization; Nautilus Biotechnology's ability to maintain, protect and enhance its intellectual property; and Nautilus Biotechnology's ability to continue to stay in compliance with its material contractual obligations, applicable laws and regulations.

Information on these and additional risks and uncertainties and other information affecting Nautilus Biotechnology's business and operating results is contained in Nautilus Biotechnology's Annual Report for the year ending December 31, 2025, filed February 26, 2026, and in its other filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof.

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While Nautilus Biotechnology believes its internal research is reliable, such research has not been verified by any independent source. Nautilus Biotechnology's estimates are derived from publicly available information, management's knowledge of the Nautilus Biotechnology's industry and management's assumptions based on such information and knowledge, which they believe to be reasonable. This data involves a number of assumptions and limitations which are necessarily subject to a high degree of uncertainty and risk due to a variety of factors.

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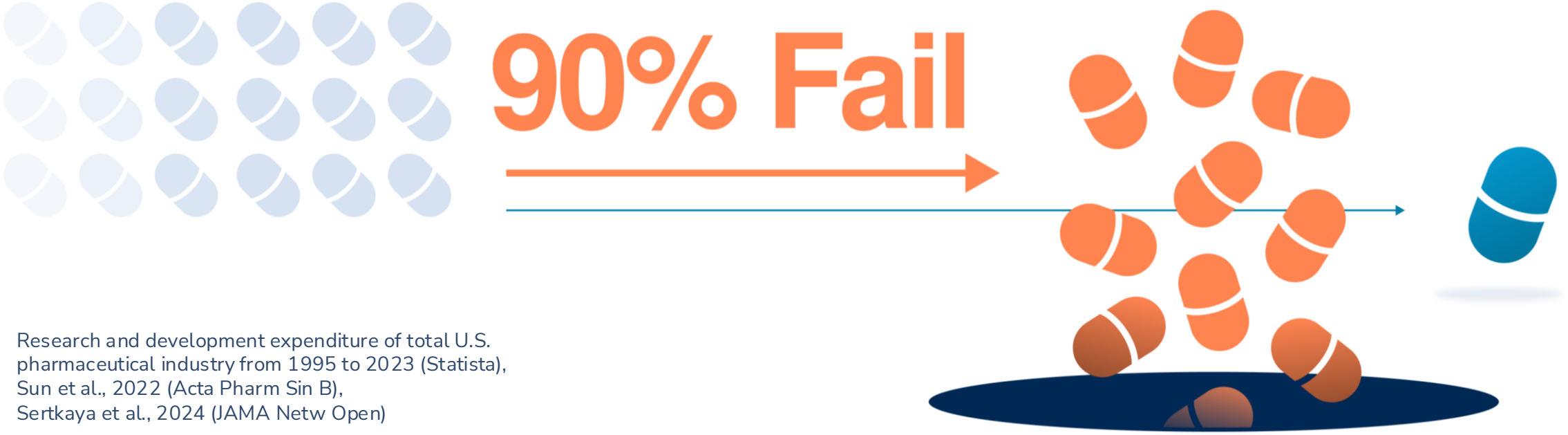
Drug Development Efforts are Massively Inefficient

95% of drugs target proteins

Limited understanding of proteins

Recycling same targets, mechanisms, and failures



Research and development expenditure of total U.S. pharmaceutical industry from 1995 to 2023 (Statista), Sun et al., 2022 (Acta Pharm Sin B), Sertkaya et al., 2024 (JAMA Netw Open)

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Alzheimer's Disease

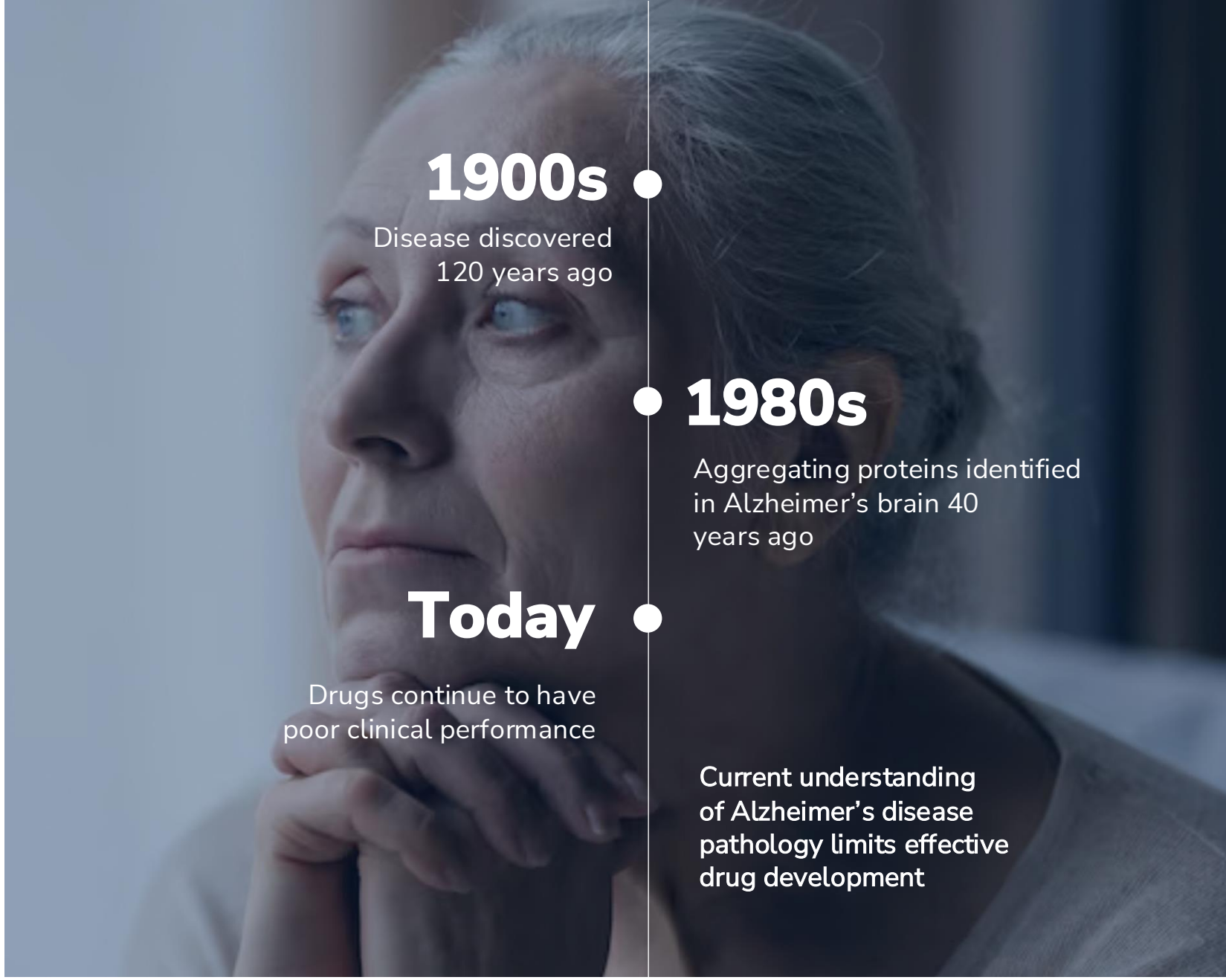
>7M

Americans living with Alzheimer's today

$1.6T

Estimated economic impact by 2050

No treatments stop decline



Aaranda et al., 2021 (J Am Geriatr Soc), Cummings et al., 2021 (Alzheimers Dement), Alzheimer's Disease Facts and Figures, 2025 (Alzheimer's Association)

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Proteins are the Key Driver of Biology

Cancer

$8.0 B

Alzheimer's and related dementias

$3.9 B

Cardiovascular disease

$2.8 B

Autoimmune disease

$1.0 B

Funding for Various Research, Condition, and Disease Categories, 2025 (NIH)

Lack of tools for studying proteins stifles progress

Billions of NIH research dollars go to protein-focused disease areas

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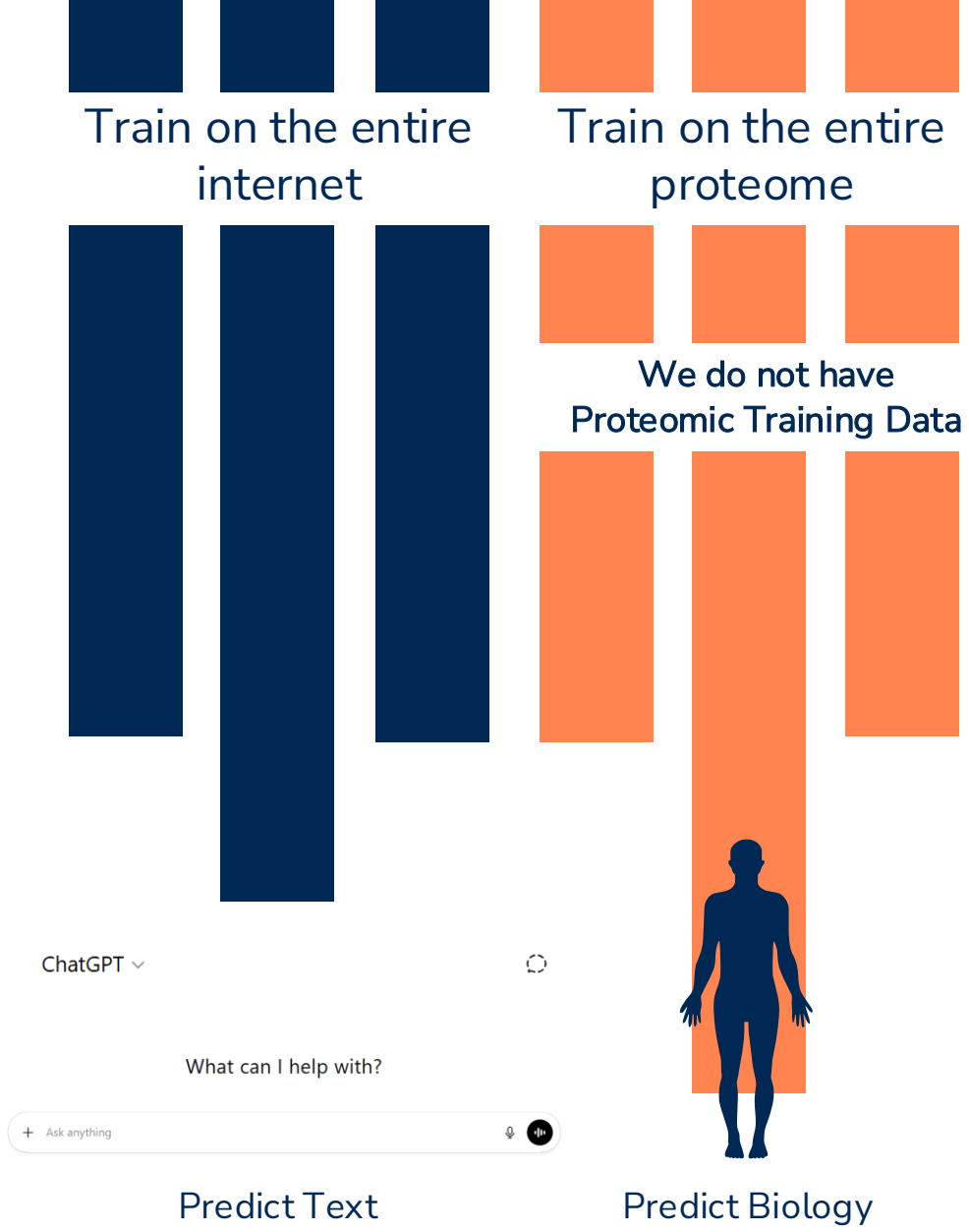
Artificial intelligence (AI)–enabled biological tools are likely to continue to require data-driven AI methods that learn patterns from large biological datasets, because the underlying rules of the types of biology being discussed in this report are generally unknown.

The Age of AI in the Life Sciences: Benefits and Biosecurity Considerations, 2025 (National Academies of Sciences, Engineering, and Medicine)

AI Cannot Solve Problems Without Large-scale, High-quality Data



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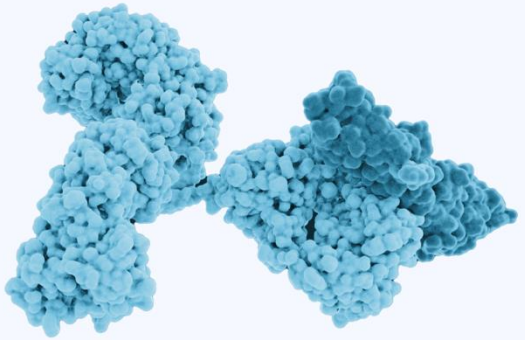
Highly Complex and Challenging Proteome Landscape

Researchers need to

- **Deeply explore individual proteins, variants, and alterations associated with biological function**
  Example: Discover neurodegeneration-specific protein variants
- **Confidently quantify and compare proteins across diverse samples**
  Example: Find proteins up or down regulated in cancer
- **Quantify both large and small changes across the proteome**
  Example: Identify precise biomarkers of cardiovascular disease



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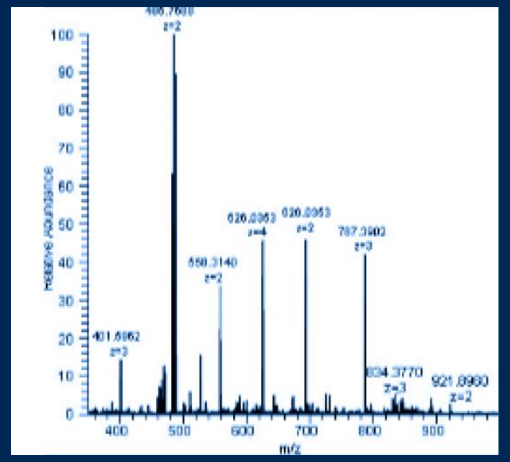
Current Technologies are Fundamentally Flawed



Existing methods cannot measure protein-level differences that drive biology

- Incomplete coverage and measurement
- Biased detection
- Limited scale and hard to use
- Fuzzy, imprecise measurements
- Confusing outputs

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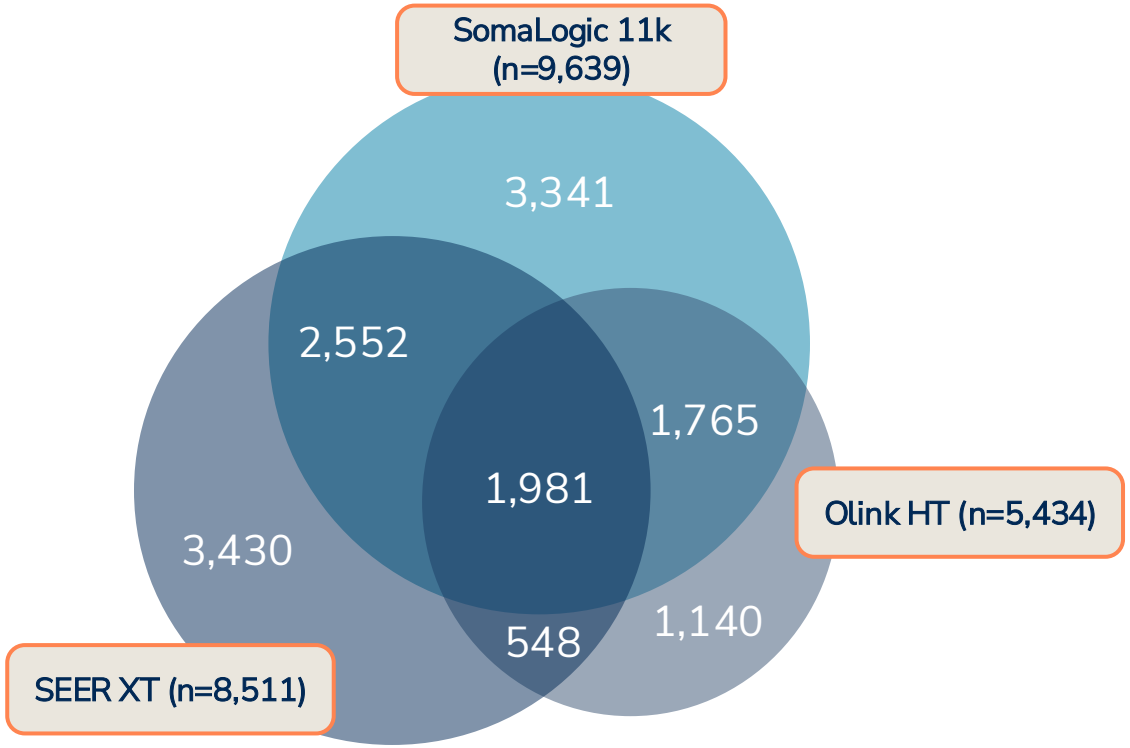
Current Technologies Provide Low-quality Data, that Doesn't Provide Functional Insight

2025 UK Biobank data discordance



Pietzner et al., 2025 (medRxiv)

Poor quality

- Highly variable data hides small but important changes in abundance indecipherable from noise

Low data agreement

- Likely different proteoforms measured by different technologies
- **<10%** proteome coverage overlap

Unclear insights

- Unspecified measurements of disparate proteoforms by different technologies likely reflect different biology

Incomplete coverage

- Affinity tools limited to blood samples
- **<50%** proteome coverage by any platform

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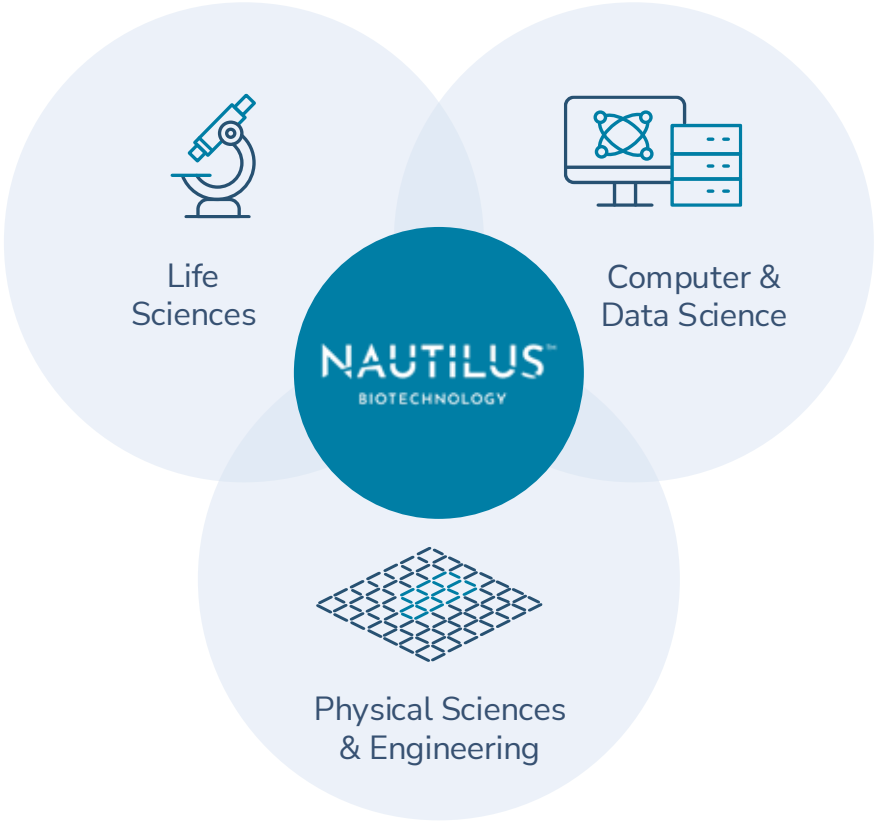
Nautilus' Revolutionary Innovation was Not Possible Until Now



Required counter-intuitive science and the maturation of key disciplines

Nautilus has innovated strengths and leveraged these strengths across key disciplines to achieve something truly revolutionary

Founders' diverse yet complementary experiences enable them to address a challenges that others could not

Pursuing deep, hard science with an entrepreneurial mindset

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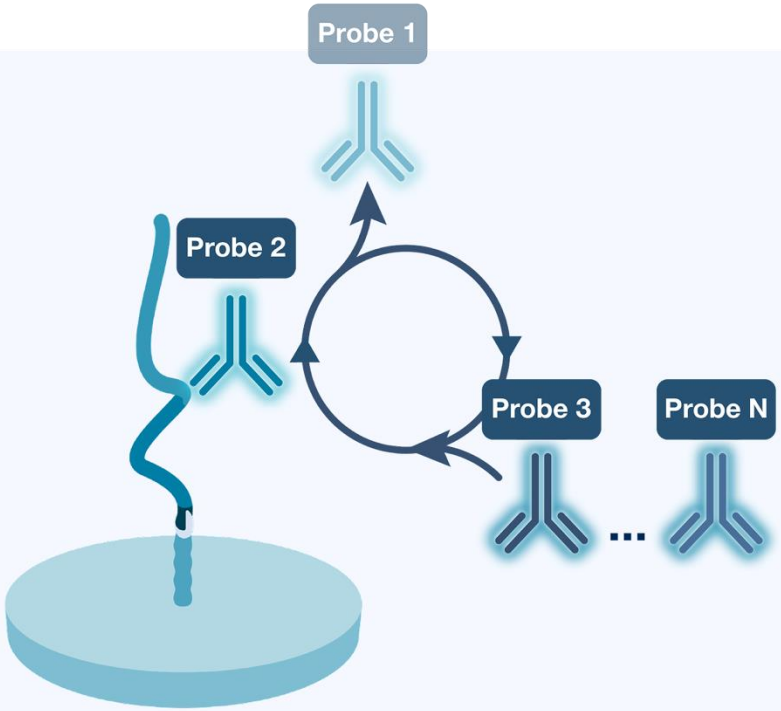
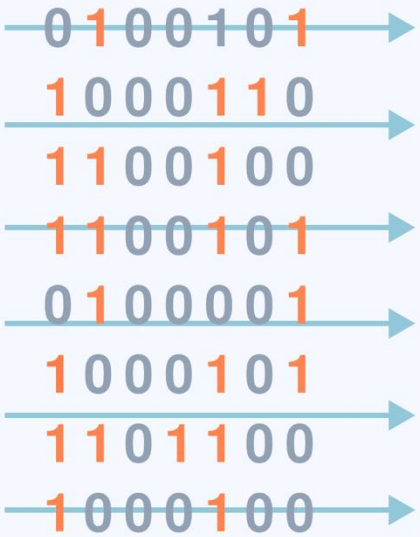
Iterative Mapping is Transformative

- Multiple interrogations of intact, single protein molecules reveal many diverse features
- Billions of single molecules analyzed simultaneously at massive scale
- Precise measurements output simple protein counts





Proteoform abundance

Tau 0N4R pS396	580
Tau 0N4R pS396, pT181	160
Tau 0N3R pS396	$1.6x10^6$
...	

Protein abundance

EGFR	44534
TP53	71753
cMET	38534
PTEN	142559
BRAF	166559
...	

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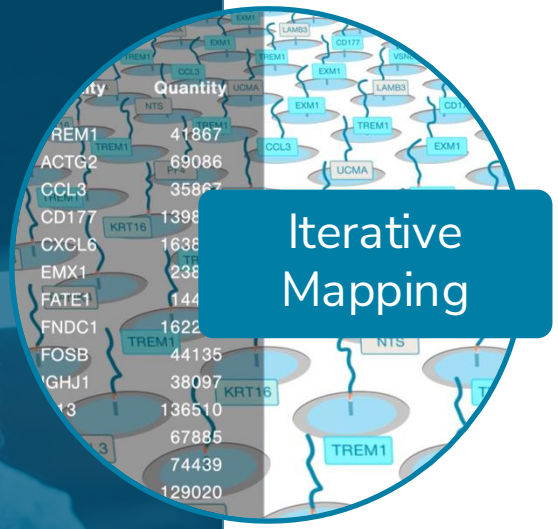
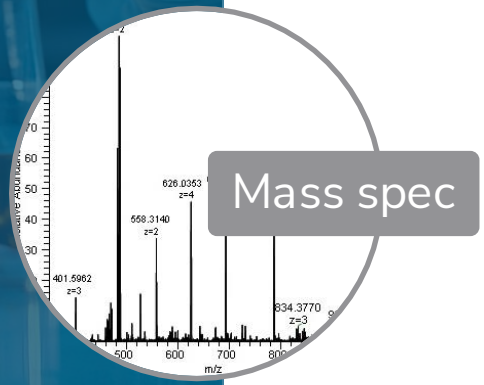
Iterative Mapping is a new category of proteomics



Direct analysis and single-molecule quantification of intact protein molecules accelerates functional insights.

Estimation of targeted protein abundance based on the identification of their parts. Extensive follow-up required.



Estimation of the proteins present based on identification of broken parts. Extensive follow-up required.

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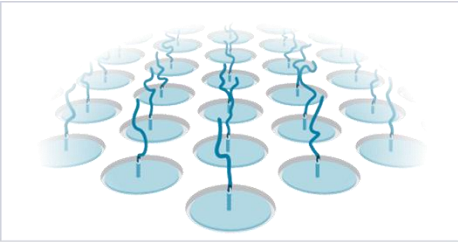
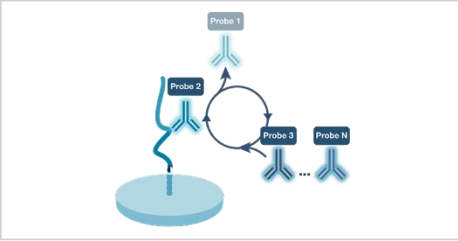
We've Built a Whole New Way to do Proteomics Over the Last Decade

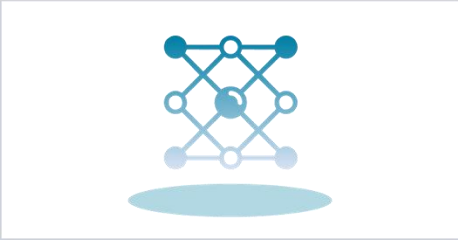
Highly differentiated IP



Nanofabricated protein arrays capable of capturing billions of individually distinguishable proteins



Novel multi-affinity probes that detect fundamental features determining protein identity



A ML-powered algorithm that distills complex probe binding data into simple protein counts

Simple, robust, AI-ready data

Proteoform abundance

Tau 0N4R pS396	580
Tau 0N4R pS396, pT181	160
Tau 0N3R pS396	$1.6x10^6$
...	

Protein abundance

EGFR	44534
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...	

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Core Performance Requirements Intended to Support Breadth, Depth, and Reproducibility in Proteomics

High sensitivity

Comprehensive proteomics requires direct detection of low-abundance molecules. The Voyager™ Platform is designed for single-molecule measurement.

Scalability across dynamic range

The Voyager Platform is designed to scale to the analysis of many samples while quantifying proteins over a wide range of abundances.

Reproducibility and robustness

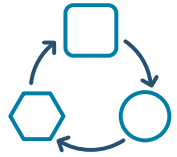
The Voyager Platform's standardized workflows and single-molecule counts are designed to provide the reproducibility needed for data integration, longitudinal studies, and the analysis of large cohorts.

Throughput

The Voyager Platform is designed to analyze tens of thousands of samples within actionable timeframes.

Usability

Broad adoption requires usability across labs and experience levels. The Voyager Platform is designed for ease-of-use through an integrated workflow, hands-off fluidics, and clear, interpretable data.



Adaptability

The Voyager Platform is designed to support multiple run configurations and assay formats to address diverse research needs.

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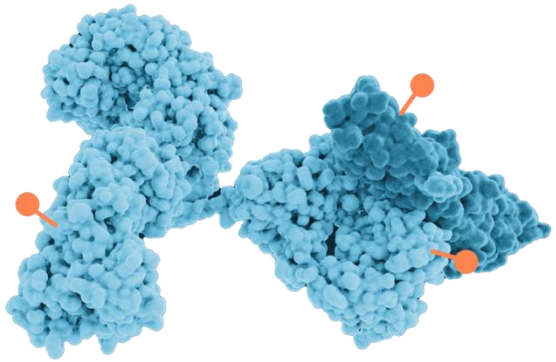
Key Applications of Iterative Mapping

...To date it has been nearly impossible to characterize the proteoform repertoire of any protein, let alone the proteoform repertoire of a given cell or cell type. And I think those are the kinds of approaches that are coming to bear from groups like Nautilus.

- Don Kirkpatrick, SVP Xaira Therapeutics

Targeted proteoform analysis

See molecular differences in protein variants



Broadscale proteomics

See changes to full protein networks

Use cases

- Identify disease pathways
- Drug target discovery
- Biomarker discovery
- Toxicology
- Mechanism of action
- Basic biology

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Nautilus Voyager™ Platform

Enabling Iterative Mapping Applications

Applications

Targeted Proteoforms

- TAU
- α-Syn
- Other Neurology Targets
- AKT1
- Other Oncology Targets
- Other Disease Areas*

Broadscale Proteomics*

Future IM Applications*

Platform

- Voyager™ instrument
- Software
- Reagents and consumables
- Services and support

Method

Iterative Mapping

*Planned expansion

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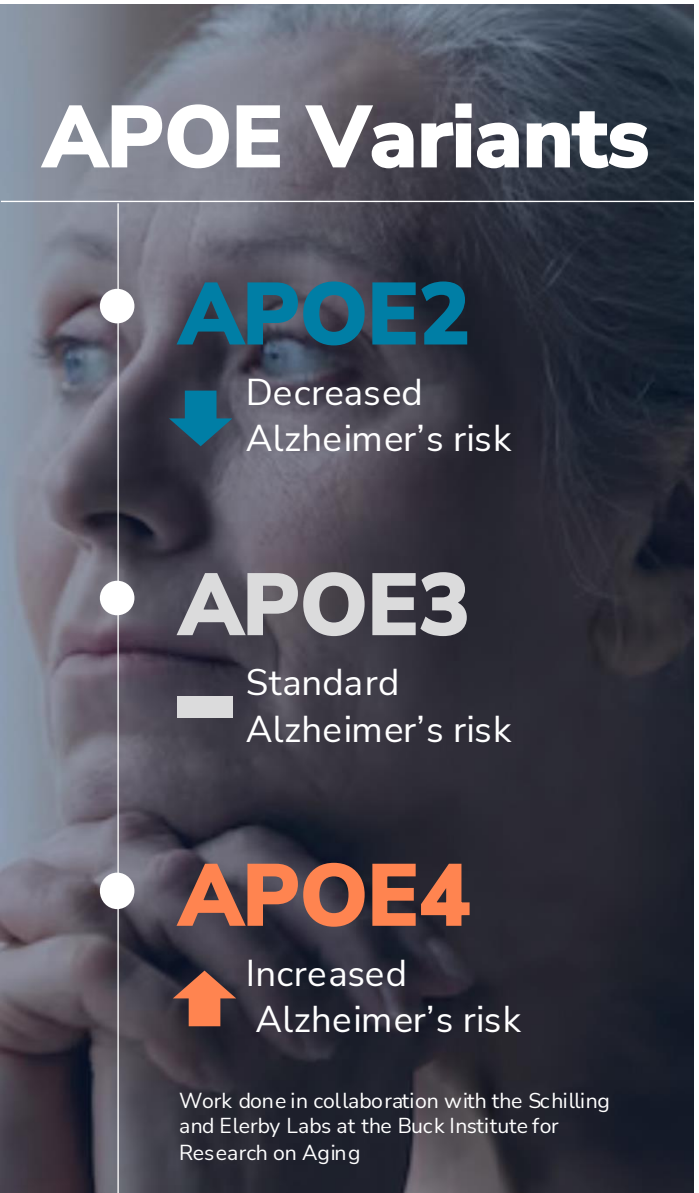
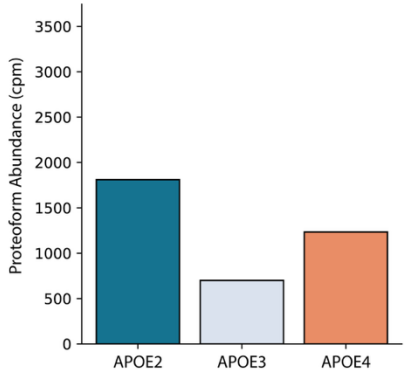
What biology underlies Alzheimer's disease risk?

The Nautilus Voyager™ Platform provides answers where others do not.

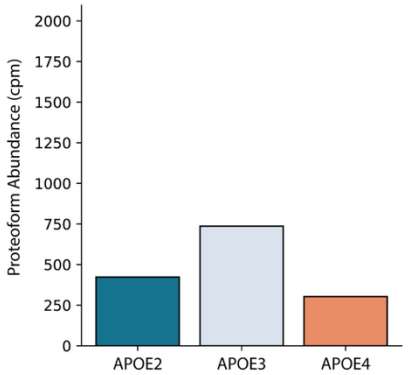


Unique Voyager Platform Data

N-0N-pS214-3R-pS396-C



N-0N-pT205-pT231-3R-pS396-C



Unique benefits

Novel biology

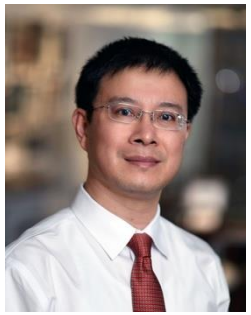
Clear differences between variants that are not visible on other platforms

Industry-leading reproducibility

Single-molecule data that researchers can trust (<5.5% median CV)

Buck Live better longer. NAUTILUS™ BIOTECHNOLOGY

Early Customers Engagements



Bing Zhang, Ph.D.

Professor, Baylor College of Medicine

EAP project details

Applying Iterative Mapping to develop new methods to accurately quantify protein isoforms in cancer.

Allen Institute

Multiple researchers

Collaboration details

Investigating the connection between the tau protein and neurodegenerative conditions such as Alzheimer's disease.

Taylor Bertucci, Ph.D.

Principal Investigator, Neural Stem Cell Institute

Collaboration details

Applying the Tau Proteoforms Assay to investigate the roles of tau proteoforms in tauopathy disease models.

Lisa Ellerby, Ph.D.

Professor, Buck Institute for Research on Aging

Collaboration details

Investigating tau proteoforms and Alzheimer's disease risk conferred by genomic variants. Alpha platform on-site.

Birgit Schilling, Ph.D.

Professor, Buck Institute for Research on Aging

Development collaboration details

Developing the Tau Proteoforms Assay to accept new sample types and expand its impact. Alpha platform on-site.

Hilal Lashuel, Ph.D.

Michael J. Fox Foundation and Weill Cornell Medicine - Qatar

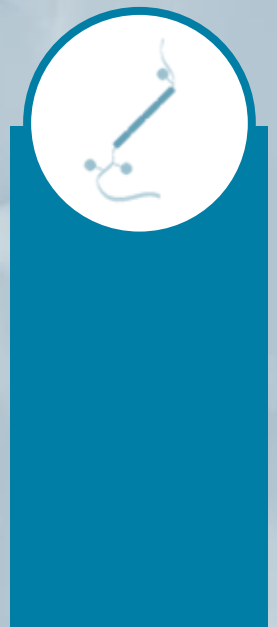
Development collaboration details

Developing targeted proteoform assays for the Parkinson's disease-associated alpha synuclein protein.

Growing proteoform opportunity

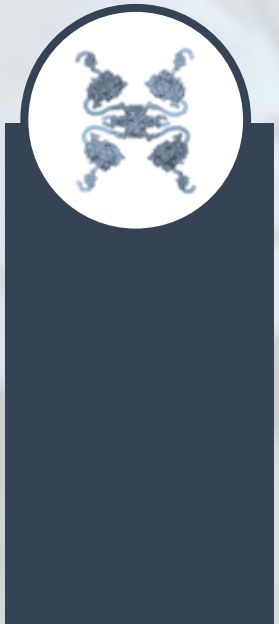
Neuroscience proteoforms

- Tau as high impact initial use case
- Alpha synuclein in collaboration with MJFF
- Large market opportunity



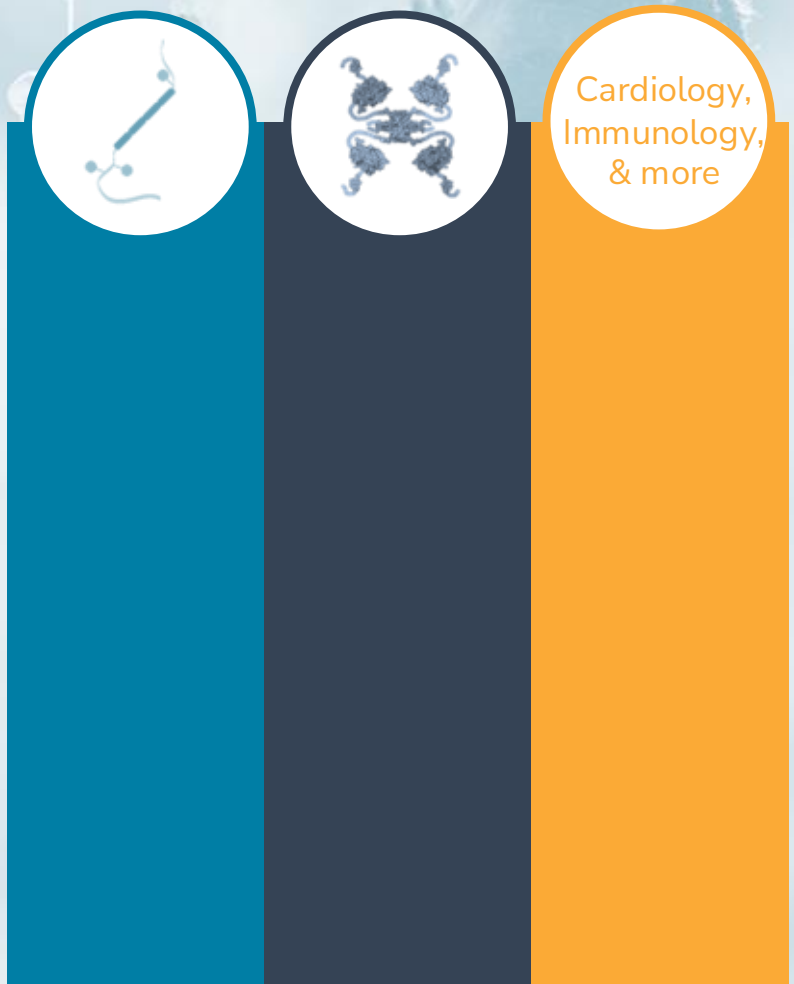
Oncology proteoforms

- AKT1, p53, EGFR have massive impact
- p53 alone is mutated in 50% of cancers
- Prevalence of tissue and sample types creates large near-term opportunity



Future targets

- Growing opportunity as value is understood



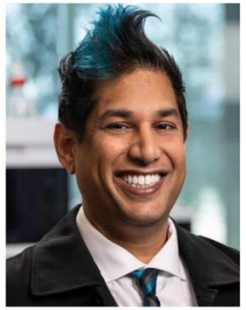
Cross-functional Team Driven to Deliver on the Promise of Proteomics

Sujal Patel

Co-Founder & CEO

Founder & CEO, Isilon Systems

Data science expert who successfully guided Isilon acquisition by EMC for $2.6B



Parag Mallick, PhD

Co-Founder & Chief Scientist

Stanford Professor

Proteomics expert with research focused on translating systems bio discoveries into precision diagnostics

Anna Mowry

CFO

Head of Finance and Sales Operations at Isilon

Cross-disciplinary background in biochemistry, finance, operations, and sales

Gwen Weld

Chief People Officer

VP of Global People and Infrastructure at Isilon Systems

More than 25 years of senior leadership in human resources, organizational culture, and business strategy

Subra Sankar, PhD

SVP Product Development

Led instrument and Consumable Development at Illumina,

SVP Product Development at GenapSy

Seasoned product and engineering expert

Matt Murphy, Esg

General Counsel

General Counsel at Pacific Biosciences and 10x Genomics

Spent over a quarter century advising companies on the cutting edge of life sciences technologies

Amber Faust

VP, Global Sales

Veteran life sciences sales leader with nearly 20 years of experience advancing proteomics technologies across pharma, biotech, academic, clinical, and government sectors while at Olink Proteomics, SomaLogic, and Waters Corporation

Jame Rose Kuhar, PhD

VP, Marketing

Over a decade of experience driving platform strategy and commercialization including product management roles at NanoString Technologies focused on spatial biology and multiomic platforms

All team members carefully selected for world-class, cross functional experience across bioinformatics, biochemistry, nanofabrication, machine learning, and more

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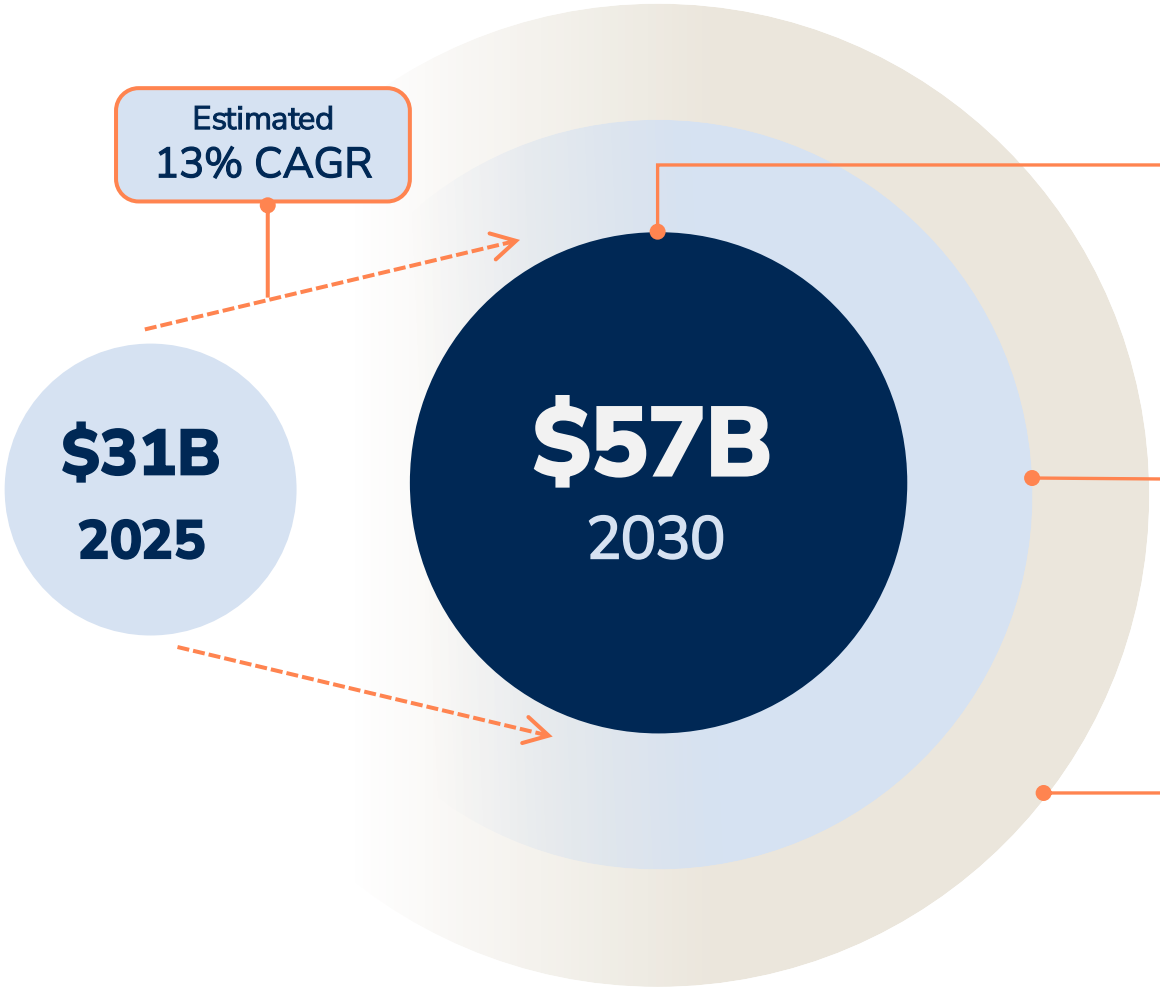
Large Market Opportunity Ready for Disruption



Winning share in a growing market

Acquire market share from existing mass spec and affinity platforms through superior performance and ease-of-use

Growth through new market creation

Establish new sources of value through expansion into AI-powered drug discovery and clinical applications as Nautilus fuels healthcare transformation

Long-term opportunity

Clinical diagnostics and precision and personalized medicine

Data from Proteomics Technologies and Global Markets, 2025 (BCC Research). Image generated at Nautilus.

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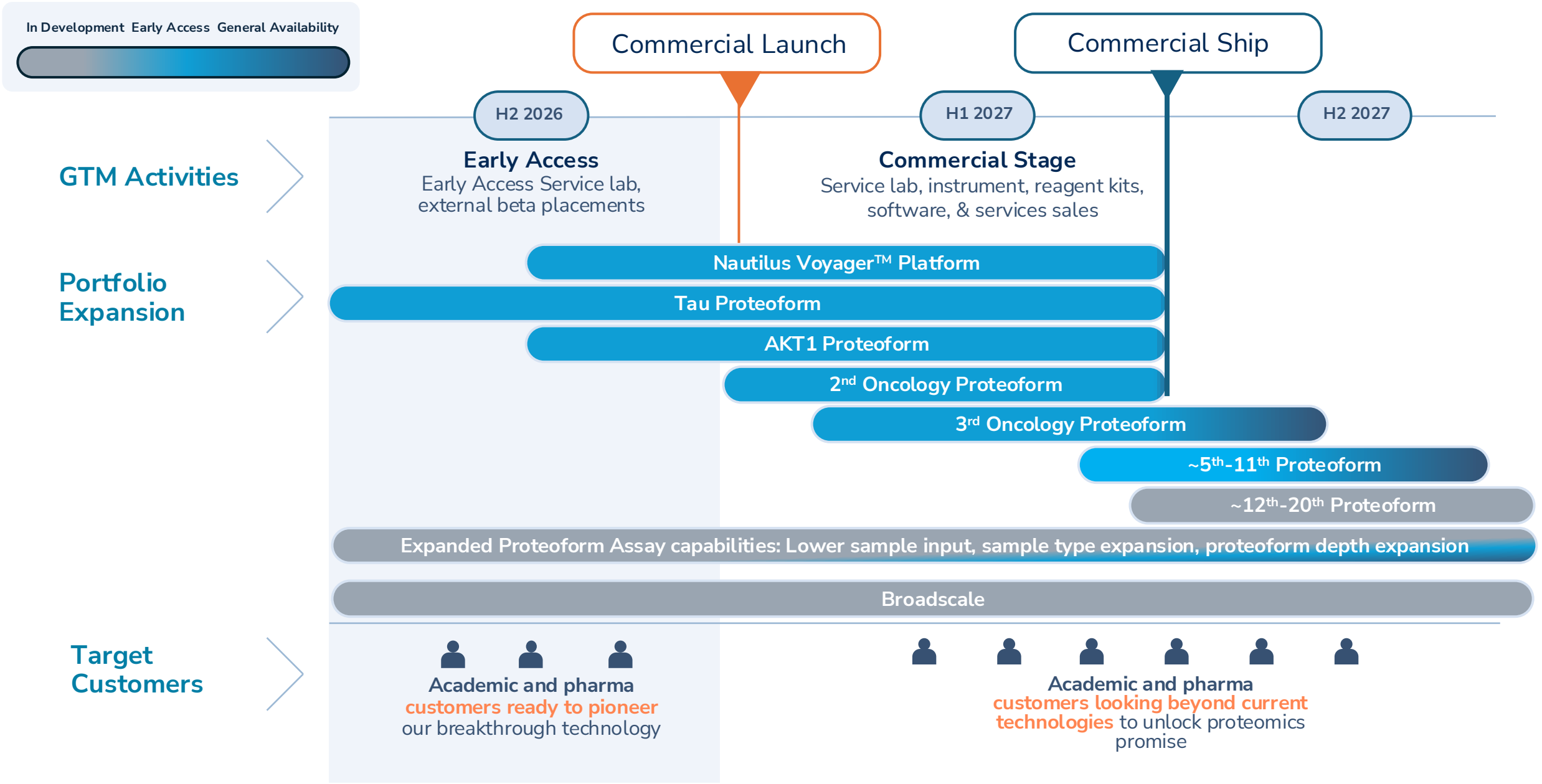
Go-to-Market Plan



Financial Overview

Q2 2026

Cash balance

$129M

(Cash, cash equivalents, and investments)

Cash burn

$14M

Cash runway

Into Q1-2028

Headcount

127 (-1% YoY)

Operating expense

$16M (-7% YoY)

Commercial Launch in Reach Fueled by a Decade of Relentless Progress

- Disruptive science
- High profit potential
- World-class team
- Shareholder alignment
- Catalysts represent value-creation opportunities

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