



**Powerful Biology
Accelerating the
Future of Medicine**

November 2021

Disclaimer and Forward-Looking Statements

IsoPlexis Corporation (“IsoPlexis,” “we,” “us,” or the “Company”) has filed a prospectus on Form S-1 (File No. 333-258046) with the SEC for the offering to which this presentation relates. The registration statement has not yet become effective. Before you invest, you should read the preliminary prospectus in that registration statement and other documents we have filed with the SEC for more complete information about us and this offering. You may get these documents for free by visiting the SEC website at <http://www.sec.gov>. Alternatively, copies of the prospectus may be obtained from Morgan Stanley & Co. LLC, Attention: Prospectus Department, 180 Varick Street, 2nd Floor, New York, New York 10014, by telephone at 866-718-1649 or by email at prospectus@morganstanley.com; Cowen and Company, LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, Attention: Prospectus Department, or by telephone at (833) 297-2926, or by email at PostSaleManualRequests@broadridge.com; Evercore Group, L.L.C., Attention: Equity Capital Markets, 55 East 52nd Street, 36th Floor, New York, New York 10055, via telephone at 1-888-474-0200, or via email at ecm.prospectus@evercore.com; or SVB Leerink LLC, Attention: Syndicate Department, One Federal Street, 37th Floor, Boston, MA 02110, by telephone at (800) 808-7525, ext. 6132, or by email at syndicate@svbleerink.com. This presentation shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

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Forward-looking statements and other information

This presentation contains forward-looking statements about the Company. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies and other future conditions. In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “predict,” “project,” “target,” “potential,” “seek,” “will,” “would,” “could,” “should,” “continue,” “contemplate,” “plan” and other words and terms of similar meaning. Forward-looking statements are subject to known and unknown risks and uncertainties, many of which may be beyond our control. We caution you that forward-looking statements are not guarantees of future performance or outcomes and that actual performance and outcomes may differ materially from those made in or suggested by the forward-looking statements contained in this presentation, as disclosed in the “Risk Factors” and “Special Note Regarding Forward-Looking Statements” sections of our prospectus filed with the SEC. Given these uncertainties, you should not place undue reliance on these forward-looking statements. In addition, even if our results of operations, financial condition and cash flows, and the development of the markets in which we operate, are consistent with the forward-looking statements contained in this presentation, those results or developments may not be indicative of results or developments in subsequent periods. New factors emerge from time to time that may cause our business not to develop as we expect, and it is not possible for us to predict all of them.

All information contained herein speaks only as of the date of this presentation, except where information is stated to be presented as of a specific date. The Company undertakes no duty to update or revise the information contained herein, publicly or otherwise, including any forward-looking statements.

Market, Industry and Other Data

This presentation includes estimates regarding market and industry data. Unless otherwise indicated, information concerning our industry and the markets in which we operate, including our general expectations, market position, market opportunity and market size, are based on our management’s knowledge and experience in the markets in which we operate, together with currently available information obtained from various sources, including publicly available information, industry reports and publications, surveys, our customers, trade and business organizations and other contacts in the markets in which we operate. Certain information is based on management estimates, which have been derived from third-party sources, as well as data from our internal research. In presenting this information, we have made certain assumptions that we believe to be reasonable based on such data and other similar sources and on our knowledge of, and our experience to date in, the markets in which we operate. Market and industry data, which is derived in part from management’s estimates and beliefs, are subject to change and may be limited by the availability of raw data, the voluntary nature of the data gathering process and other limitations inherent in any statistical survey of such data. In addition, projections, assumptions and estimates of the future performance of the markets in which we operate and our future performance are necessarily subject to uncertainty and risk due to a variety of factors, including those described in “Risk Factors” and “Special Note Regarding Forward-Looking Statements” of the registration statement. These and other factors could cause results to differ materially from those expressed in the estimates made by third parties and by us.

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Non-GAAP Financial Measures This presentation includes certain non-GAAP financial measures, including EBITDA. Such non-GAAP financial measures are in addition to, not a substitute for or superior to, measures of financial performance prepared in accordance with U.S. GAAP. A reconciliation of these measures to the most directly comparable GAAP measure is included in the Appendix to these slides.

WE CAPTURE POWERFUL BIOLOGY TO ACCELERATE ADVANCED, CURATIVE MEDICINES

PROTEOMICS

SINGLE CELL
BIOLOGY

MULTI-OMICS



Large **\$12B** Single Cell Proteomics TAM²

Large **Additional \$12B** Single Cell Multi-omics TAM²

Large **Additional \$10B** Clinical TAM²

172 instruments in the field¹

68% YTD revenue growth through Q3 2021³

95 Publications focused on high impact clinically relevant journals

Instruments placed in the **Majority of Comprehensive Cancer Centers in the US⁴** and **All of the Top 15 Pharma⁵**

Three Paradigms Changing Biology & Medicine

FUNCTIONAL PROTEOMICS

GAP

SINGLE-CELL BIOLOGY

GAP

SINGLE-CELL MULTI-OMICS

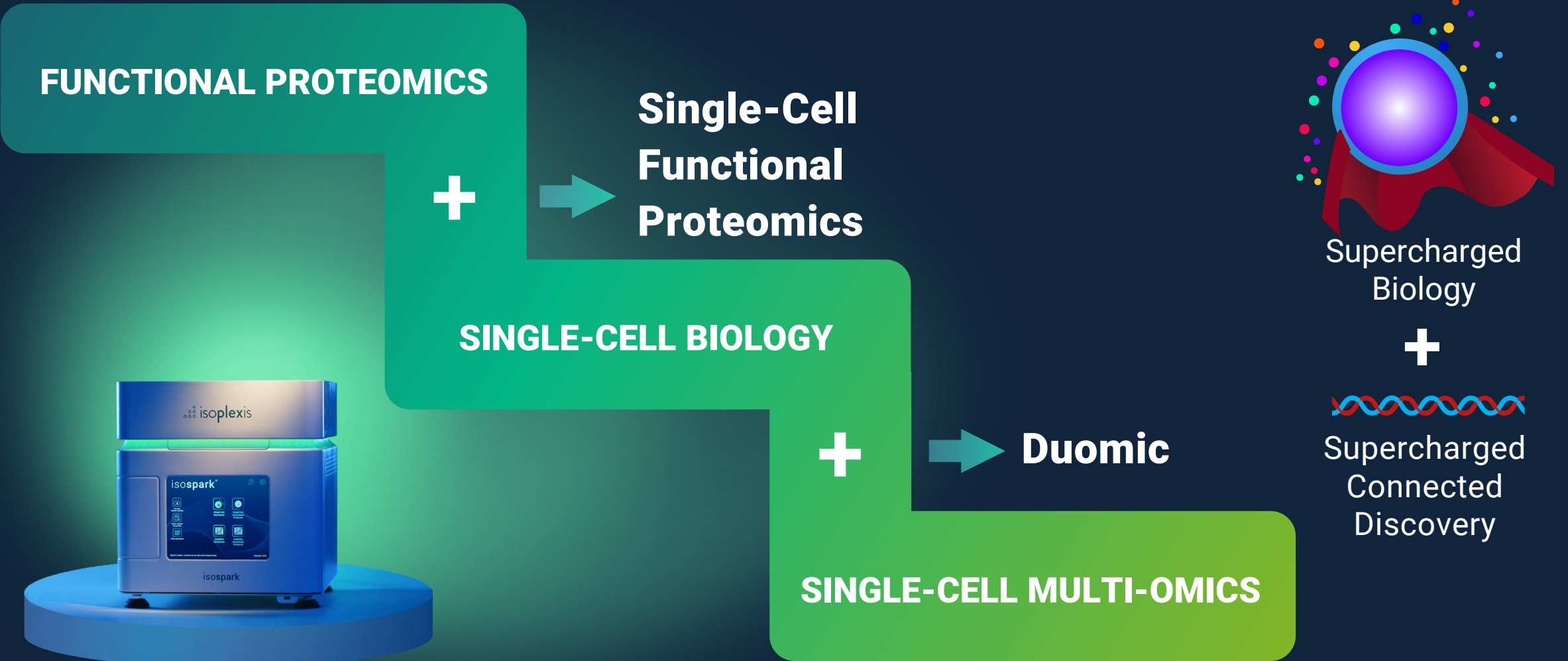
Challenge:

These three paradigms are disconnected today

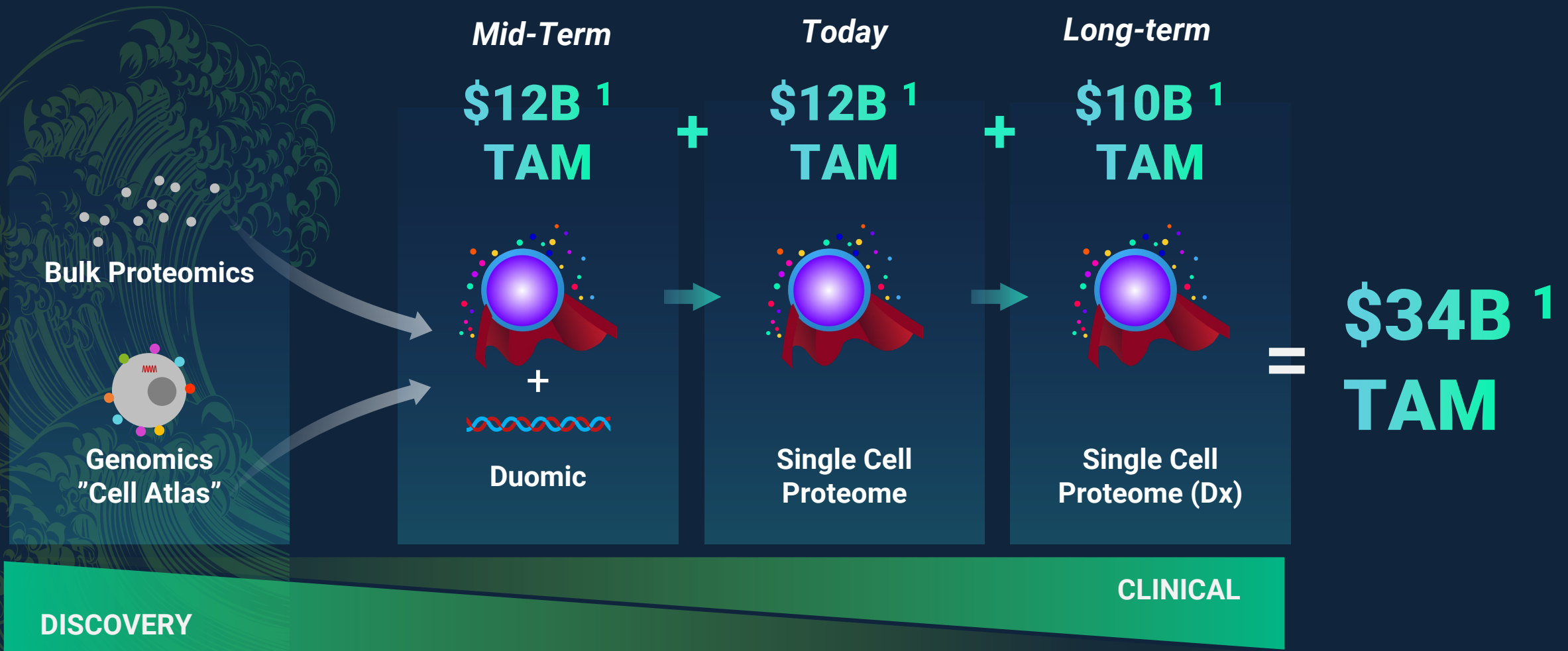
Impact on Disease & Medicine:

Large gaps to capture & predict *in vivo* biology

IsoPlexis Connects These Three Paradigms in One Instrument Platform



Waves of 'Omic Discovery Drive Three Large IsoPlexis Market Opportunities



¹ Based on management estimates.

Single-Cell Genome Misses Proteome

Dynamic *in vivo* biology is captured by the proteome i.e. the key truth to advance medicines and diagnostics

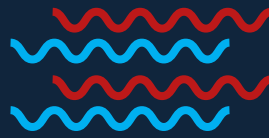
PROTEOME IS COMPLEX
REQUIRES DIRECT DETECTION



GENOME



Alternative promoters
Alternative splicing
mRNA editing



TRANSCRIPTOME



Low correlation (0.4)*
between transcription/RNA
and true cell function

Post-translational
modifications



PROTEOME

*Vogel et al. Nature Reviews Genetics, 2012

Wave of Bulk Proteomics Drives Need for Single Cell Proteomics

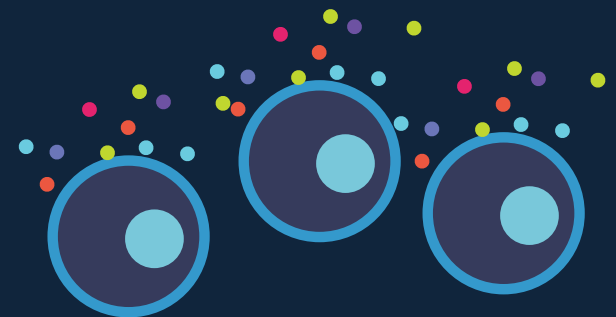
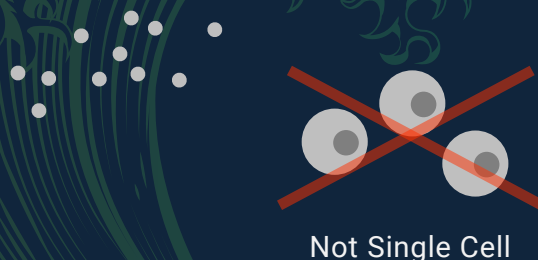
**BULK
PROTEOMICS**



**SINGLE CELL
PROTEOMICS**



**ACCELERATE
CRITICAL MEDICINES**



**Discover important
protein analytes driving
disease and patient
response**

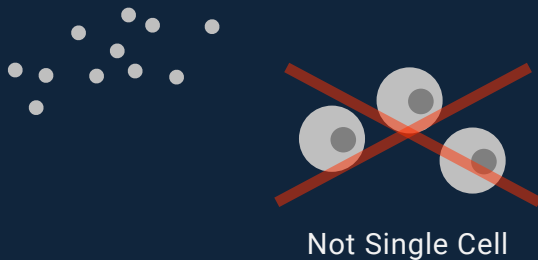
**Reveal the cells producing
proteomic reactions, the
earliest signals orchestrating
patient response**

- Cancer Immunology**
- Cell Therapy**
- COVID-19**
- Targeted Therapies**
- Inflammation**

Proteomics Landscape: Bulk to Single-Cell Proteomics

IsoPlexis' Unique Single Cell + Proteomics Unlocks Earliest Signals of Patient Response

**COMPREHENSIVE
BULK PROTEOME
(NOVEL PLATFORMS)**

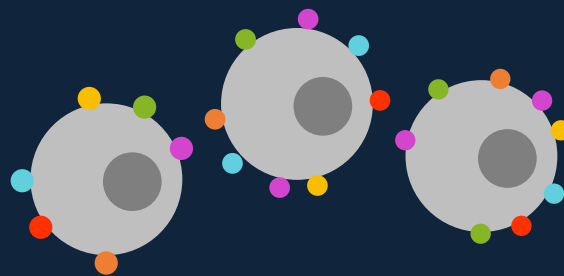


Not Single Cell

Circulating Proteins,
No Cellular Reactions

65,000 systems ¹

**COMPREHENSIVE
CELL TYPE
(FLOW CYTOMETRY)**

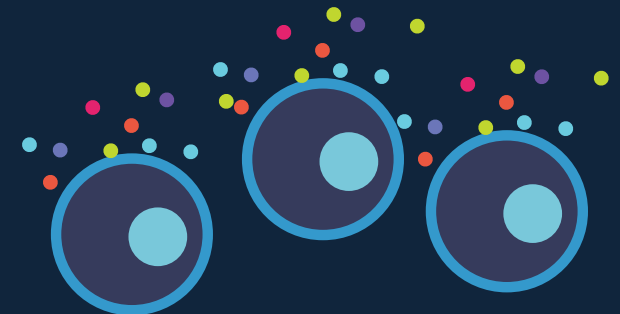


Surface Phenotype

40,000 systems ¹

**COMPREHENSIVE
CELL FUNCTION**

isoplexis

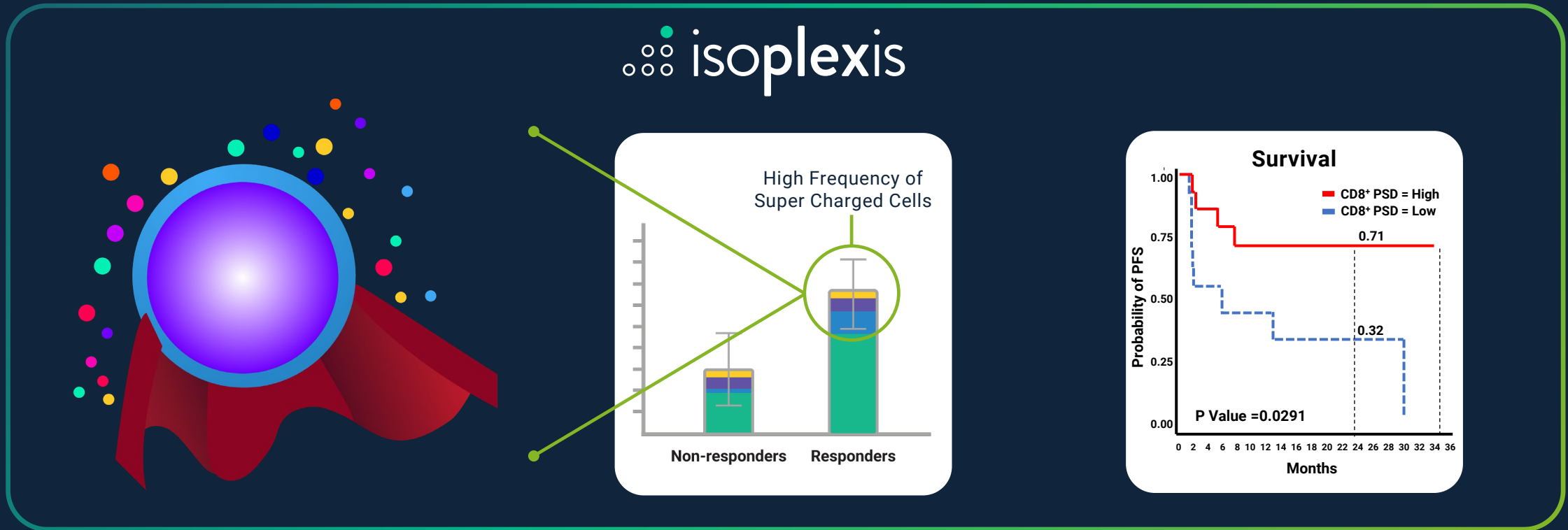


Functional 'Secretome' Phenotype

20,000+ Unit SAM ¹

¹ Consulting research

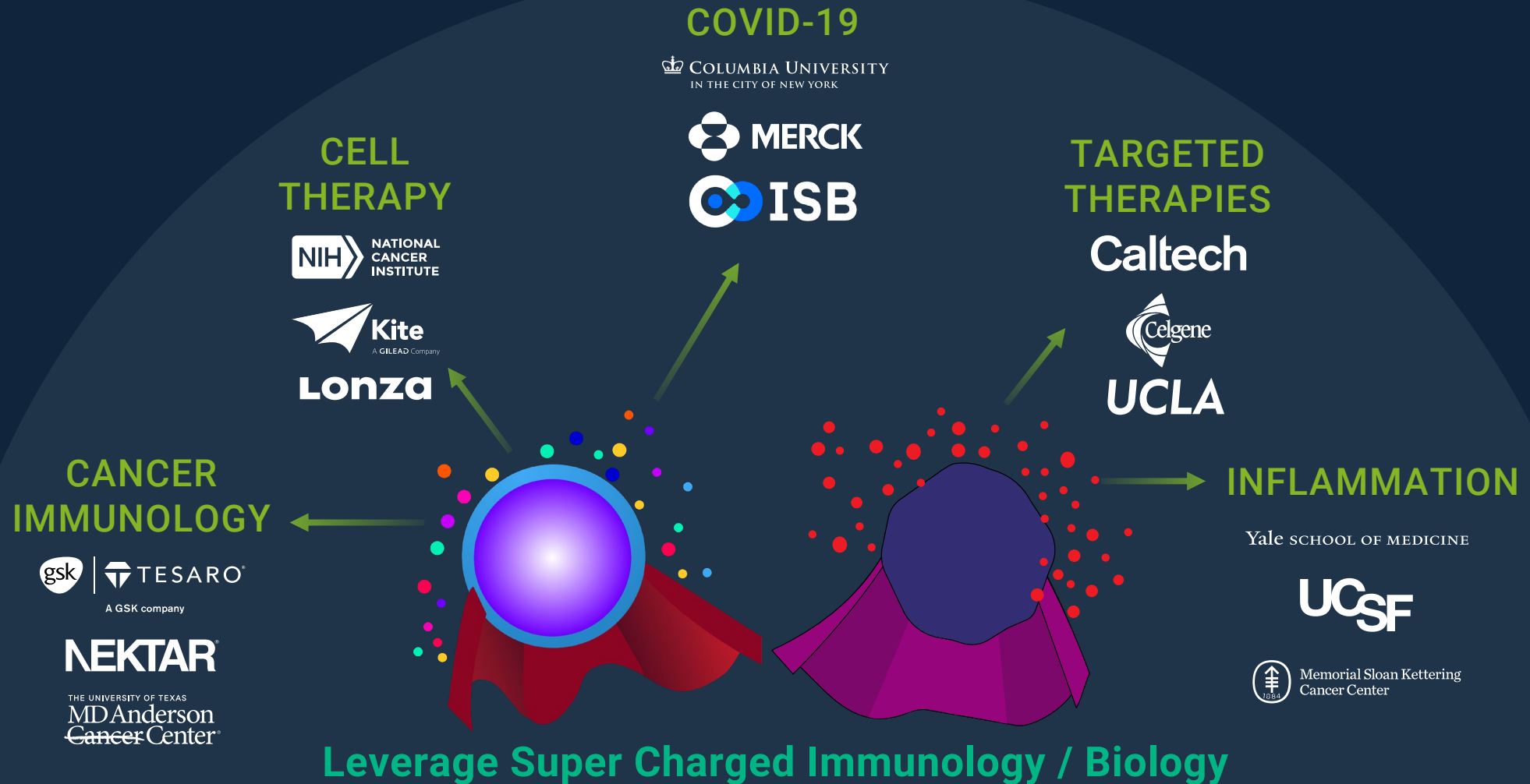
Super-Charged Proteomic Biology Drives Super Charged Patient Response



IsoPlexis reveals highly proteomically “multi-functional” superhero immune cells

Identify earliest signals of response in many clinical & pre-clinical studies *

Largest Most Impactful Immune Medicine Markets Leverage IsoPlexis



Why the Need: Leading Clinical Journals on Unique Single-Cell Proteomics

“ Our results suggest that engineering iterations should be guided by careful studies of single-cell CAR polyfunctionality incorporating cytokine production as a critical quality attribute ”

SC PROTEOMICS AS FUTURE OF
CAR-T ENGINEERING

- Nature Medicine, July 2021

Spiegel, J.Y., Patel, S., Muffly, L. et al. CAR T cells with dual targeting of CD19 and CD22 in adult patients with recurrent or refractory B cell malignancies: a phase 1 trial. Nat Med 27, 1419–1431 (2021)

“ We assessed the polyfunctional strength index (PSI), which is an indicator of the number of cells capable of secreting multiple types of cytokines. As PSI reflects the ability of a T cell to carry out multiple functions, it is recognized as a metric for the potency of cell therapy and for the efficacy of vaccines. ”

SC PROTEOMICS AS FUTURE OF
SOLID TUMOR IMMUNE MEDICINES

- Nature Medicine, August 2021

Creelan, B.C., Wang, C., Teer, J.K. et al. Tumor-infiltrating lymphocyte treatment for anti-PD-1-resistant metastatic lung cancer: a phase 1 trial. Nat Med 27, 1410–1418 (2021).

Single Cell Proteomics Rapidly Establishing Advanced Medicine Leadership

100%

OF TOP 15
PHARMA¹

59%

OF
COMPREHENSIVE
CANCER CENTERS²

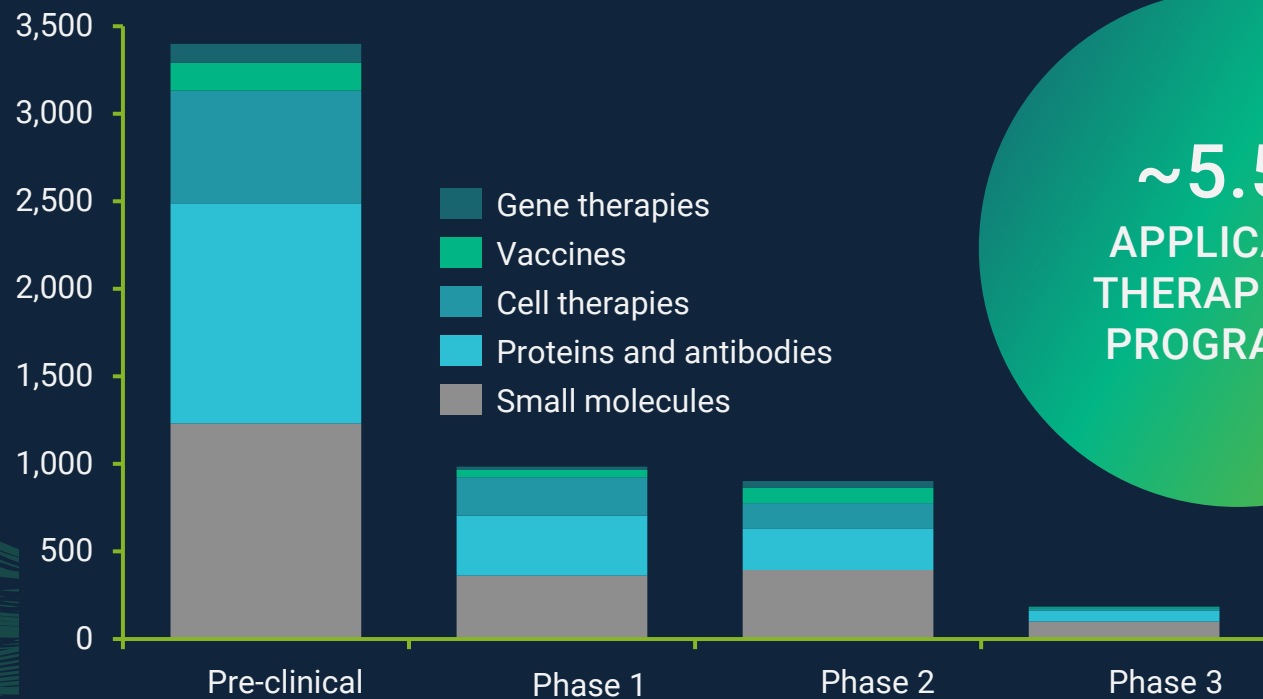
95

PUBLICATIONS

¹ By 2020 revenue. ² Based on the National Cancer Institute's list of Comprehensive Cancer Centers.

Single-Cell Proteomics Drives Large Advanced Medicine Opportunity

Wave of proteomics drives targeted & clinically relevant single-cell proteomics



~5.5K
APPLICABLE
THERAPEUTIC
PROGRAMS ¹

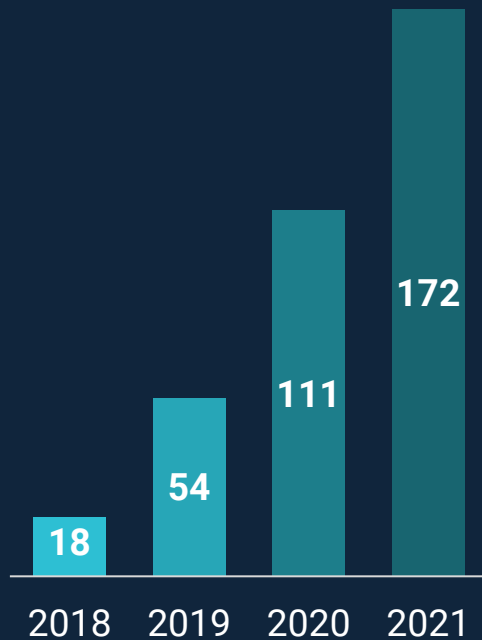
20K
INSTRUMENT
OPPORTUNITY ¹

\$12B ²
TAM

¹ Consulting research. ² Based on management estimates

Accessible, Automated Proteomic Workflow is Key to Adoption & Usage

CUMULATIVE
INSTRUMENTS IN THE
FIELD¹



SAMPLES:
MANY CELL TYPES
AND PROTOCOLS



Cryopreserved Samples

INSTRUMENT:
AUTOMATED
FUNCTIONAL
PROTEOMICS HUB



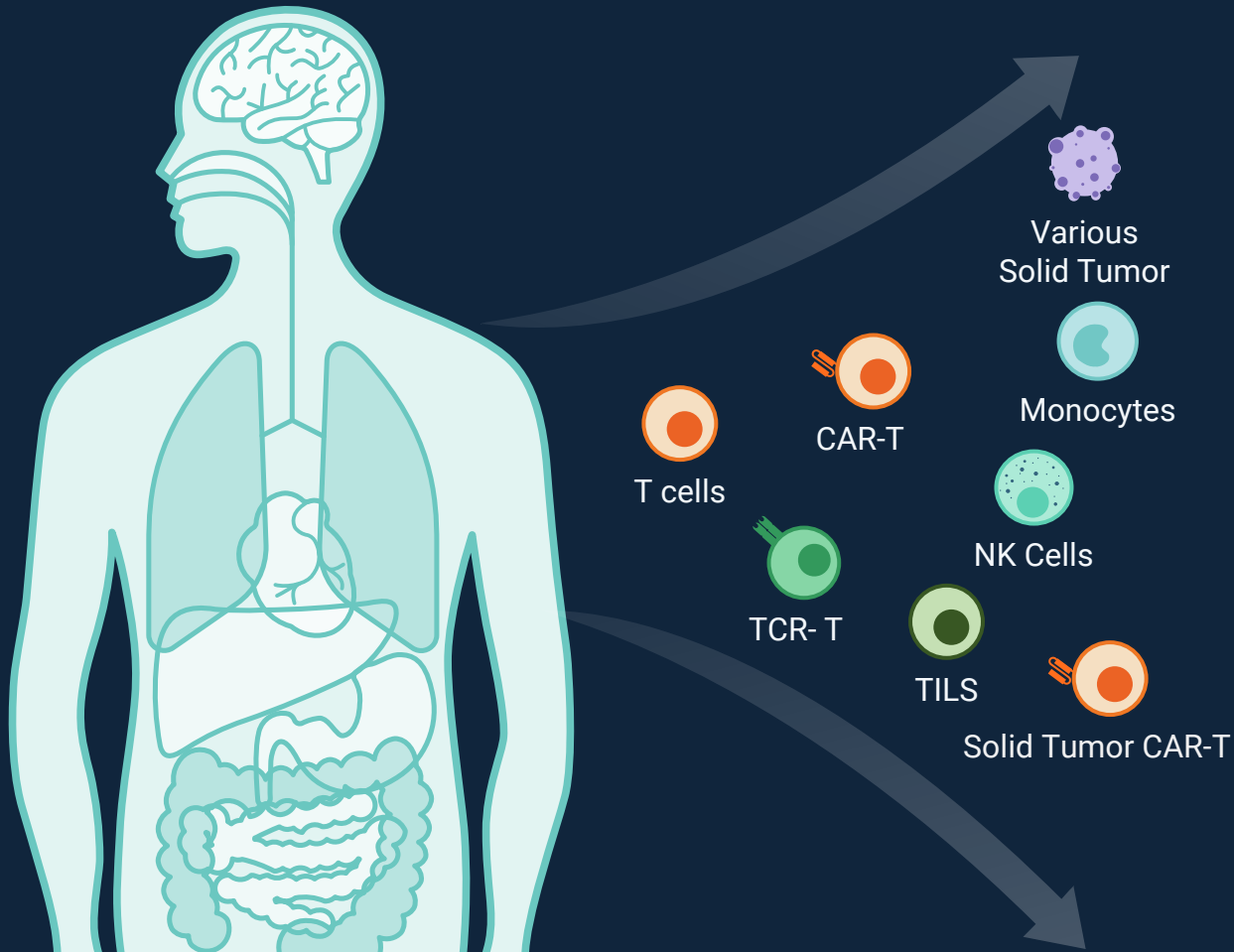
AUTOMATED
ANALYTIC
SOFTWARE:
ACCESSIBLE
INSIGHTS



¹ Through Q3 2021.

Single Cell Proteomics: IsoPlexis' Unique Functional Cell Library

A New Library of Proteomically Active Cells to Fight Cancer



A NEW LIBRARY OF
PROTEOMICALLY ACTIVE CELLS
TO FIGHT ALL OF DISEASE



Genomics

FUNCTIONAL
CELL LIBRARY

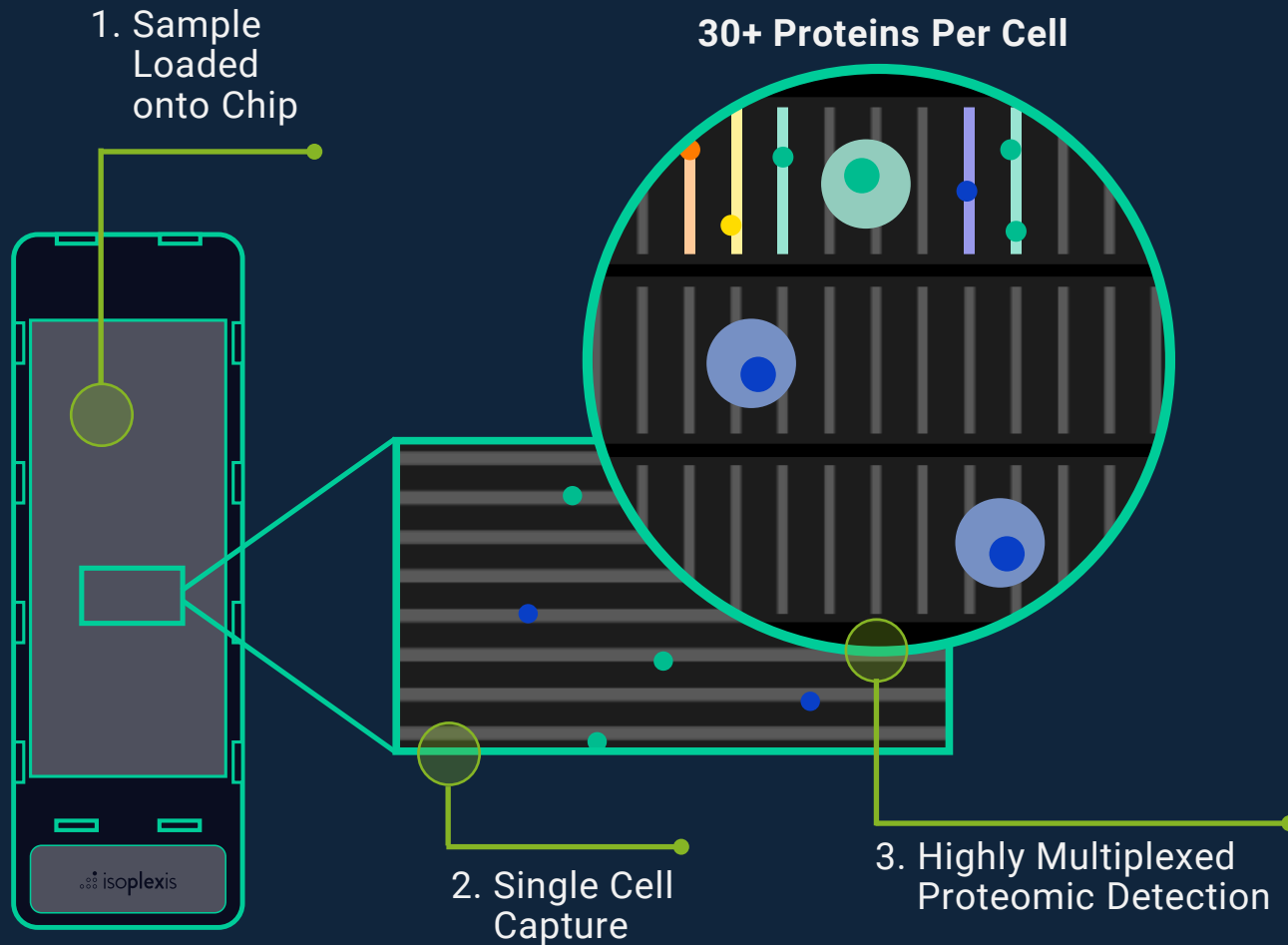


Proteomics

By 2022

90% of Immune Cell Types
80% of Cancer Cell Types
80% of CNS Cell Types

Proprietary Single-Cell Proteomic Barcoding Platform: Powerful Biology



Single Cell Proteomics

Larger "Functional Cell Library" + Panels =
Comprehensiveness

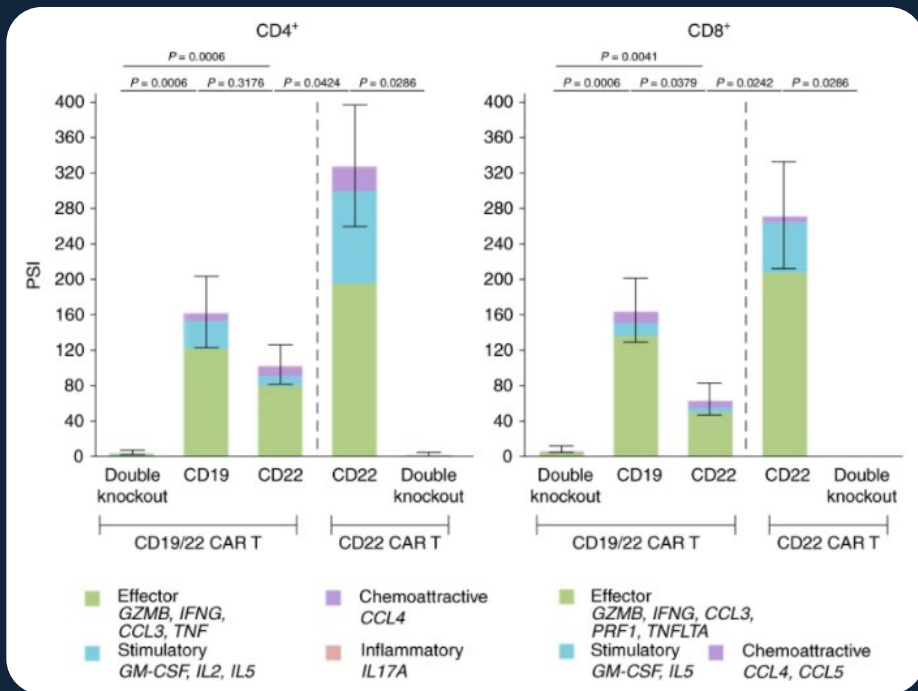
Leveraging Duomic for first
Connected Functional
Multi-Omic Biology

CAR-T Engineering Unlocked with Single Cell Proteomics


SUPER CHARGED
IMMUNOLOGY



PREDICTS
RESPONSE AND
RELAPSE



Development Question from Leaders at Stanford:

What are we missing by ignoring the pre-infusion cytokine signatures of critical cell products?

Predictive Answer:

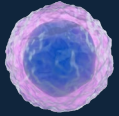
In a CD19 and CD22 bispecific CAR study, researchers using our platform showed that certain cytokine production was associated with early signs of response to CAR-T therapies or signs of relapse.

Reflection:

“Results suggest that engineering iterations should be guided by careful studies of single-cell CAR polyfunctionality incorporating cytokine production as a critical quality attribute.”¹

nature
medicine

Predictive Durability of SC Proteomics is Accelerating Cancer Immunology



**SUPER CHARGED
IMMUNOLOGY**



**PREDICTS LONG
TERM THERAPY
RESPONSE**

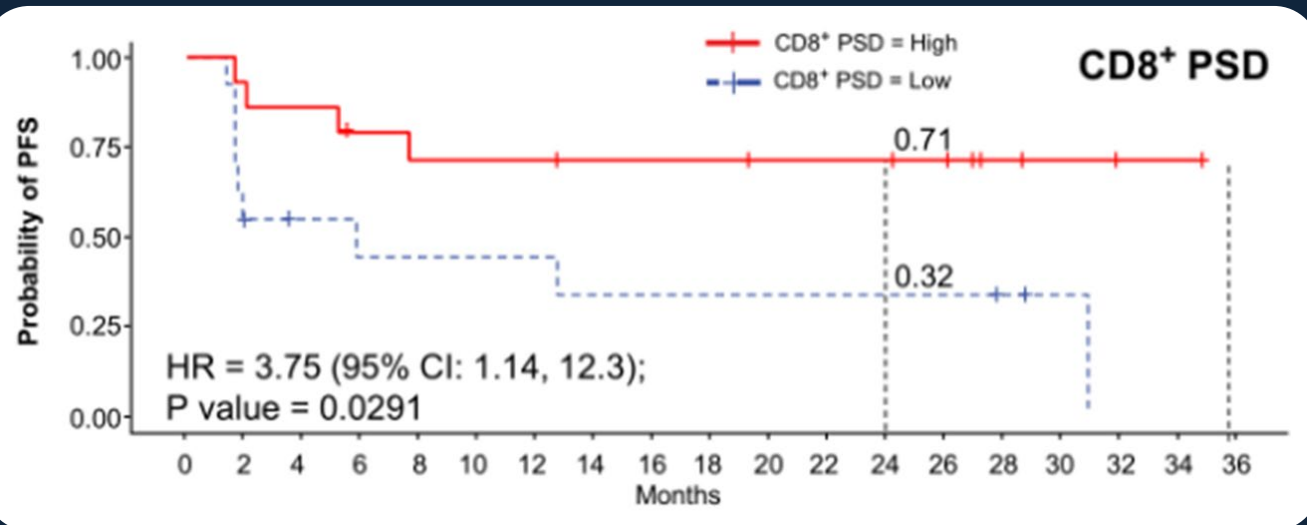
Predicting Survival in Cancer Immunology:

In a 38 patient metastatic melanoma study sponsored by Bristol Myers Squibb and Nektar Therapeutics, where the patients underwent checkpoint inhibitor and IL-2 agonist therapy. Our platform identified that a blood-based biomarker correlated with patient response and progression-free survival.

Reflection on Earlier Information Provided:

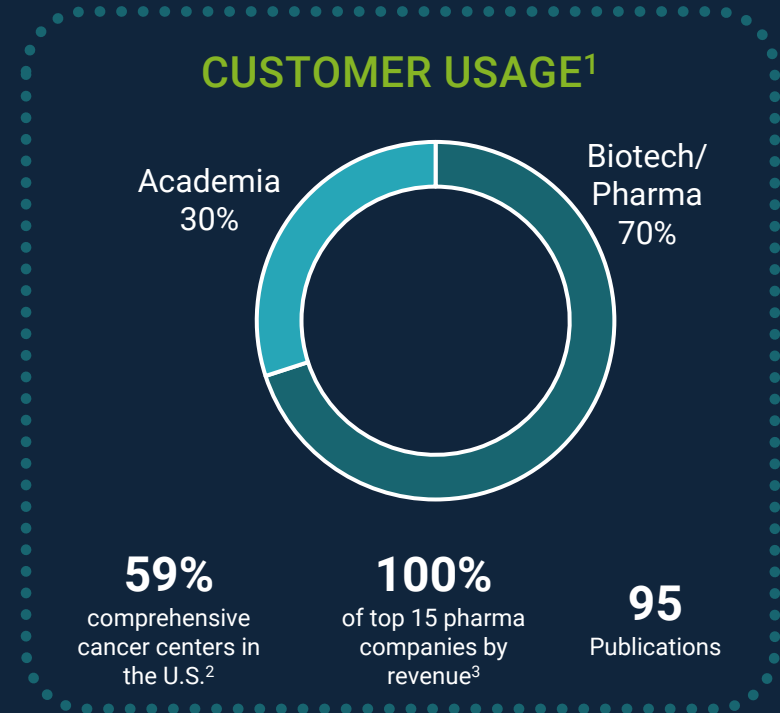
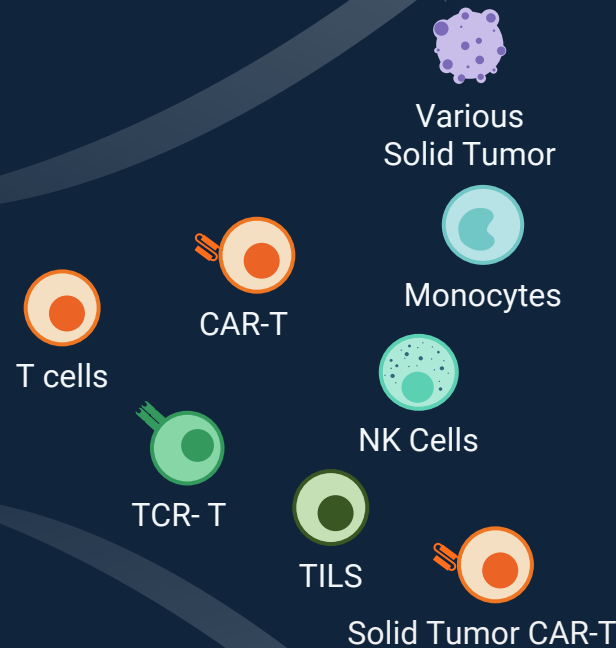
IsoPlexis has shown unique correlations with its single-cell cytokine biomarker with survival in multiple solid tumor studies with trials/therapies.

Journal of Clinical Oncology[®]
An American Society of Clinical Oncology Journal



Comprehensiveness & Field Support Driving Consumable Pull-Through

FUNCTIONAL CELL LIBRARY



Building the Library of Proteomically Active Cells to Drive Continuous Consumable Usage

¹ As 2021 percentage of revenue 2021 Q3 YTD ² Based on the National Cancer Institute's list of Comprehensive Cancer Centers ³ By 2020 revenue.

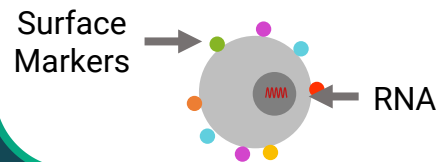
Duomic: The Unique Multi-Omic Discovery Bridge

Biopharma

MULTI-OMIC CELL TYPE

**Hypothesis-free
discovery** with high plex
on dissociated cells

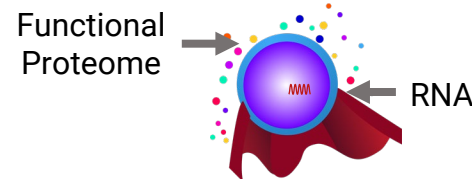
CELL ATLAS



SEQUENCING + FUNCTIONAL PROTEOMICS

**Fill in the Missing
Multi-Omic Gaps**

 isoplexis



**MISSING LINK: CYTOKINES &
PHOSPHOPROTEINS**

PURE SINGLE CELL PROTEOMICS

Utilize Predictive Single
cell proteomics to drive
long term response in the
clinic

 isoplexis

Academia (core labs, PPIs)

Increasing Specificity of Hypothesis on Cell Function

Evolution of Single Cell –Omic Technology Use in Research

PAST AND PRESENT

Cell Type Identification Through SC –Omic

Single-Cell Uni -Omic

- SC RNA-seq
- SC ATAC-seq

Single-Cell Multi -Omic

- SC RNA seq + surface proteomics
- SC RNA-seq + ATAC-seq



 isoplexis

*IsoPlexis' Duomic **bridges** cell type identification studies to SC functional phenotyping*

PRESENT AND IMMIMENT

Cell Functional Elucidation Through Functional SC –Omic

Functional Single-Cell –Omic

- SC secretomics
- SC metabolomics
- SC intracellular proteomics
- SC transcriptomics + proteomics

*“... Over the past 5 years, we have been really **focused on elucidating cellular heterogeneity and building cell atlases of human tissues** through single-cell RNA-seq ...”*

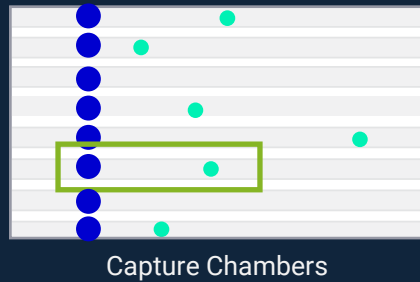
- Core Director & Principal Investigator

*“... The next era of single-cell –omics will focus on adding a **functional dimension to our gene expression analyses**. Intracellular proteomics, for example, accomplishes just that ...”*

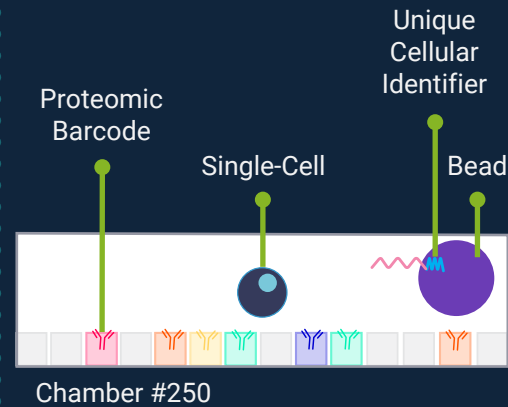
- Research Scientist, Major University

A Unique Functional Multi-Omics Solution: Connected Single-Cell Biology

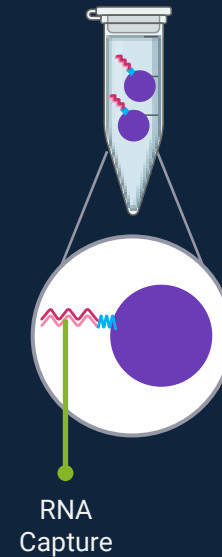
LEVERAGE CORE SINGLE-CELL PLATFORM



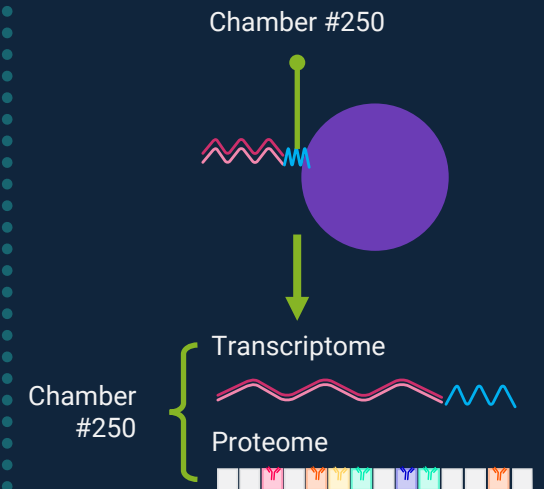
PROTEOME DETECTED AND TRANSCRIPTOME CAPTURED



SEQUENCE DETECTED



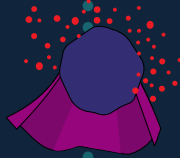
PROTEIN + SEQUENCING LINKED, PER CELL



Revealing the Genetic Drivers of Potentially Resistant Tumor Cells

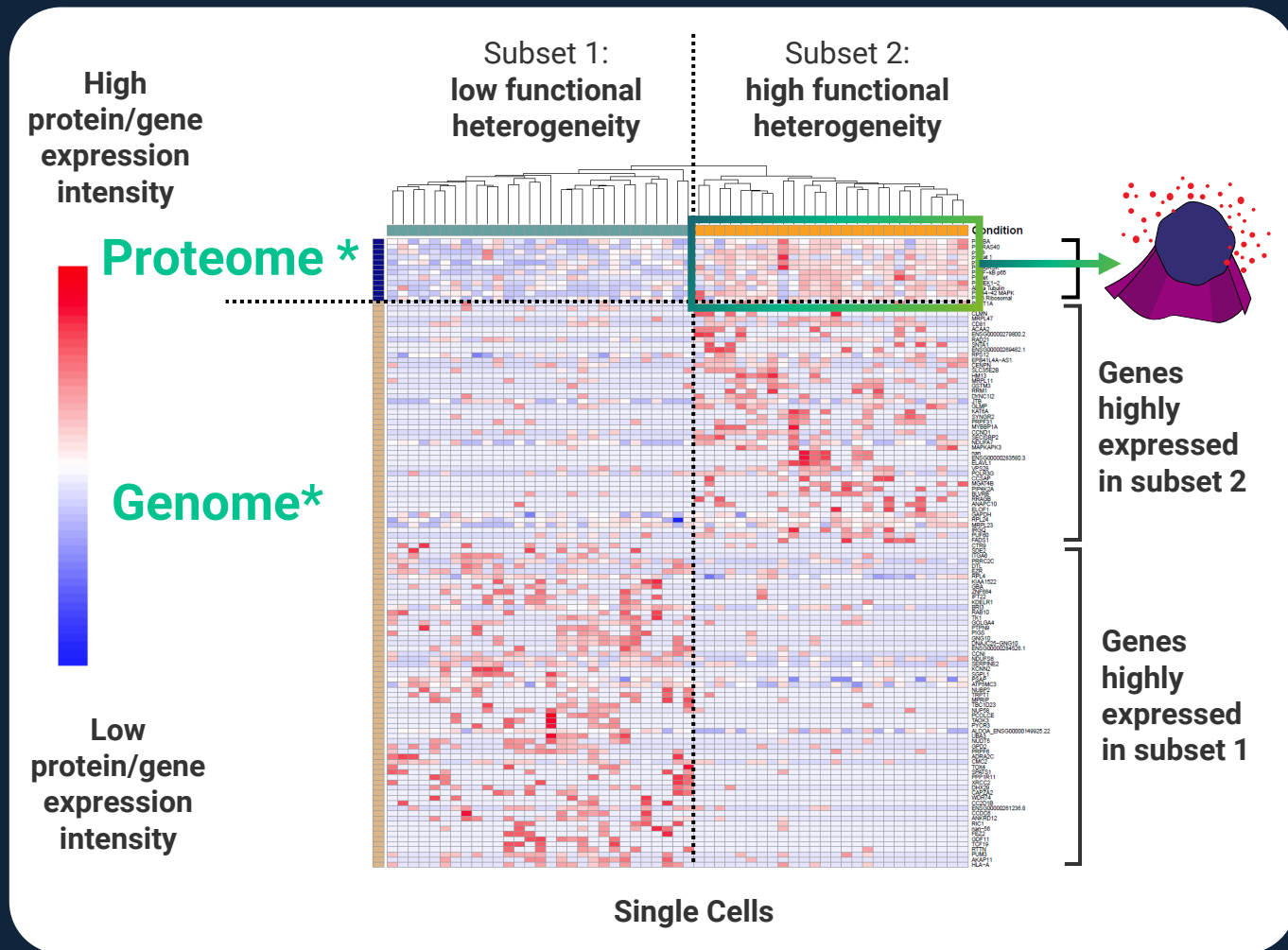
First of its kind Duomic data presented at AGBT

HIGHLY ACTIVE "SUPERVILLAIN" PROTEOMIC SUBSET



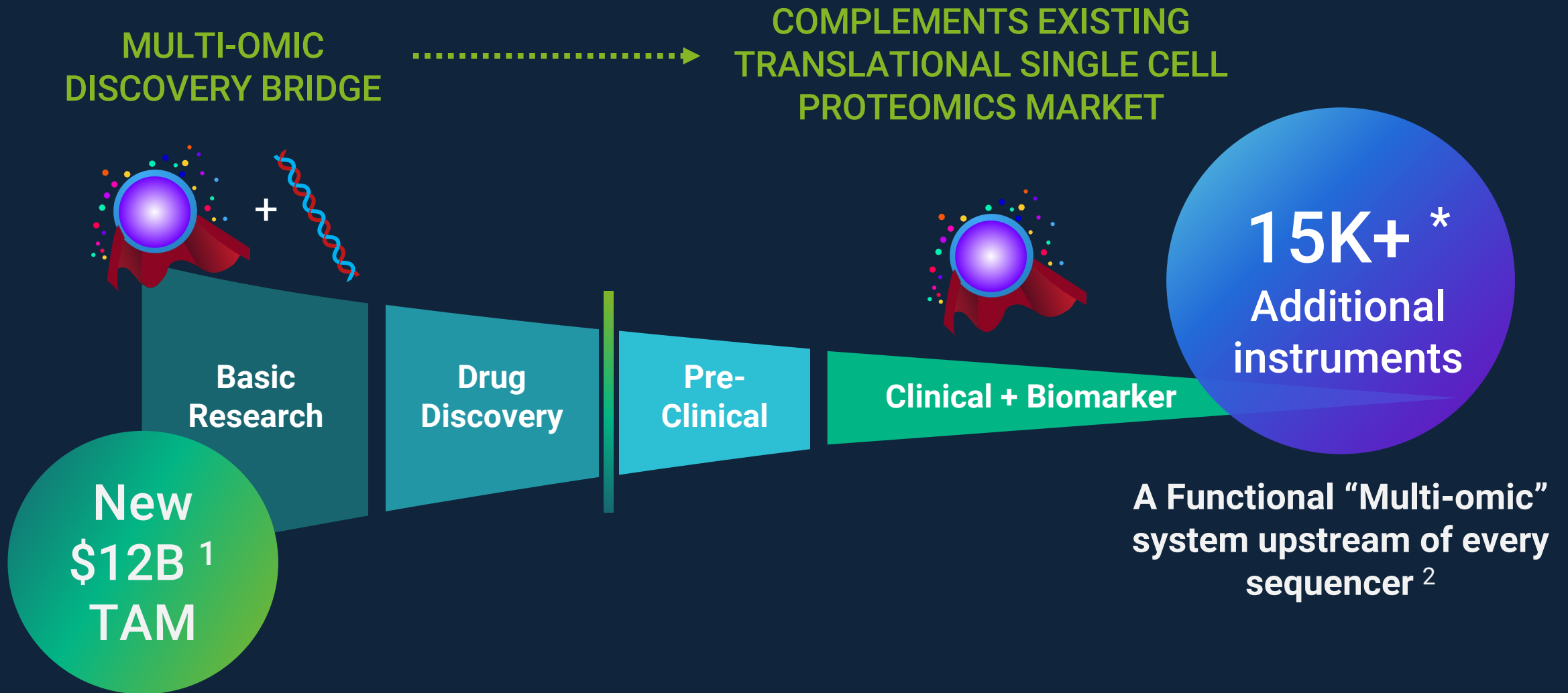
Associated Most Strongly
with These Expressed Genes
($p < 0.01$):

- MGAT4B
- MRPL23
- ACAA2
- RAD21
- VPS28
- JTB
- SYNGR2
- KAT6A
- IRGQ
- MAPKAPK3



*All displayed genes had differential expression between the two cell subsets (p value < 0.05)

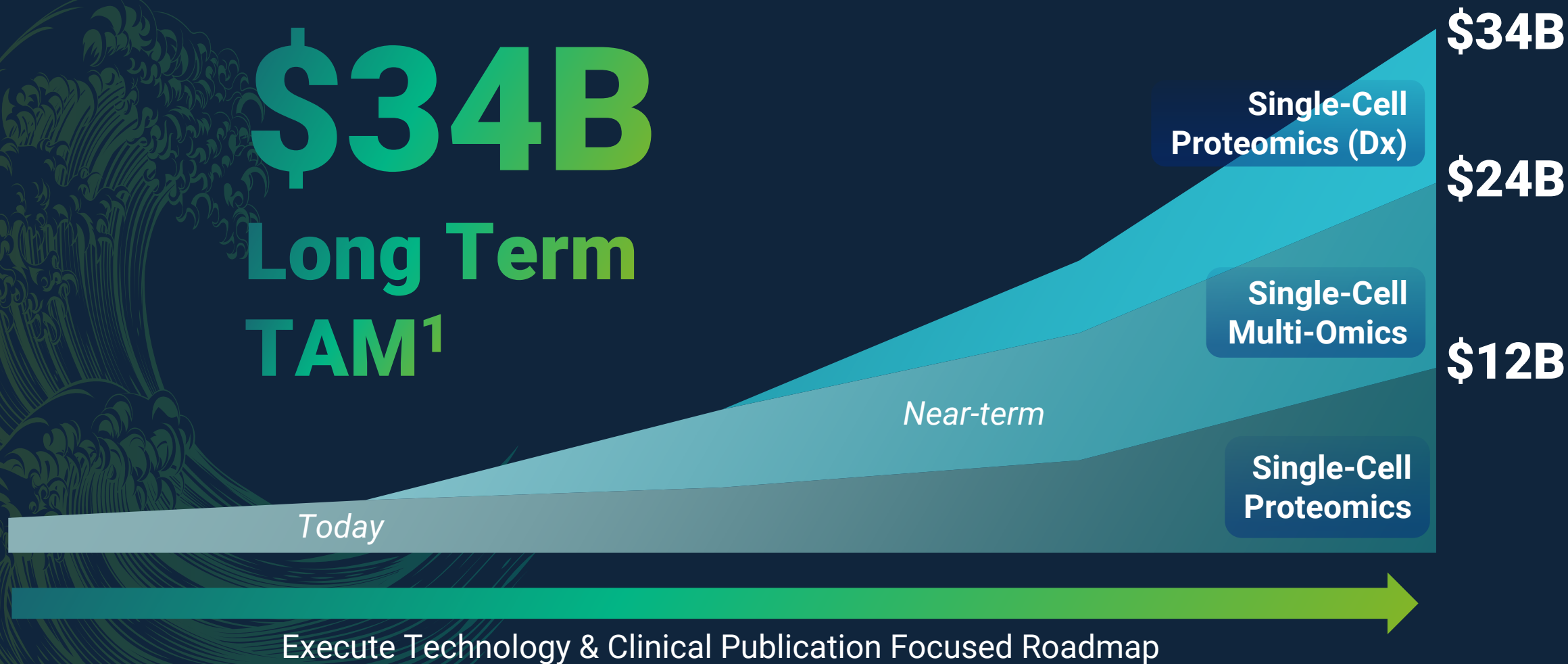
Additional \$12B “Sequencing” & Multi-Omic Discovery TAM



¹ Based on management estimates. ² Consulting research / survey data. * Estimated sequencer base, consulting research

An Integrated Roadmap & Large Opportunity

\$34B
Long Term
TAM¹



¹ Based on management estimates.

153 Foundational Patents Issued and Filed Underpins Continued Expansion

KEY PROTEOMIC PLATFORMS, TECHNOLOGIES, AND APPLICATION AREAS



IsoLight



IsoSpark



IsoSpeak

- Automated Instrumentation and Software
- Single-Cell and High Multiplex Proteomics
- End to End Multi-omics Analysis
- Advanced Analytics

153
**PROTEOMICS,
 SEQUENCING,
 AND SYSTEM
 PATENTS**



Single-Cell Sequencing & Protein



Single-Cell Secretome



Single-Cell Intracellular Proteome



Single-Cell Metabolome

- Proteomic Barcoding
- DNA/RNA Sequencing
- High Throughput Single-Cell Sequencing + Proteomics
- Cellular Capture
- Chip Design and Fabrication
- Immune Profiling and Signatures
- Single-Cell Secretomic Capture
- Single-Cell Intracellular Proteome Capture
- Single-Cell Metabolomic Capture
- Tumor Profiling and Signatures



CodePlex Secretome



CodePlex Intracellular Proteome



CodePlex Metabolome

- Bulk Proteomic Barcoding
- Small Volume Serum Analysis
- Secretomic Capture
- Intracellular Proteome Capture
- Metabolomic Capture

Seasoned Management Built to Scale



Sean Mackay
CEO and Co-founder
LAZARD



John Strahley
CFO
IRONWOOD



Jing Zhou, MD, PhD
CSO
Yale



Peter Siesel
CCO
TECAN.



Richard Rew
SVP General Counsel
Luminex



Verna Siu
SVP Sales Operations
SURGIQUEST



Carrie Carter
SVP People Ops
SARAH CANNON
Fighting Cancer. Together.



Patrick Paczkowski, PhD
SVP Software
Yale



Raj Khakar
VP Finance
ThermoFisher
SCIENTIFIC



Anthony Catalano
SVP Operations
PerkinElmer



Michelle Reid, Ph.D.
VP Services & Support
QIAGEN



Rui Zheng, PhD
SVP Innovation
iontorrent



Cynthia Turcotte, PhD
VP Applications
454
SEQUENCING



Jon Chen
VP Marketing
Yale



John H Leamon, PhD
SVP R&D Integration
QIAGEN

LEADERSHIP BUILT TO SCALE:

Continued additions to global leadership team from leading Life Science Tools companies – built to scale growth

COMMERCIAL GROWTH:

Team built around senior leadership with track record in genomic, proteomic, and other med tech applications

GLOBAL FOCUS:

Directors in major global regions, with leading distribution partners in EMEA and APAC

LEADING R&D:

Track record of award winning application development and engineering, with continued velocity of launches for new applications

SCALABLE OPERATIONS:

Sustained growth of operational excellence, with experienced med tech leadership

isoplexis

isolight[®]



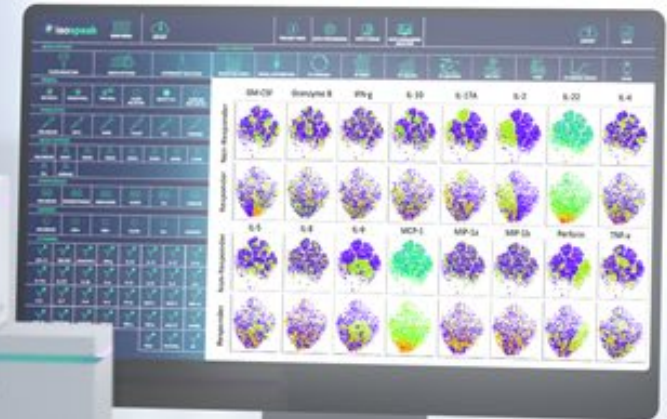
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isospark[®]



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