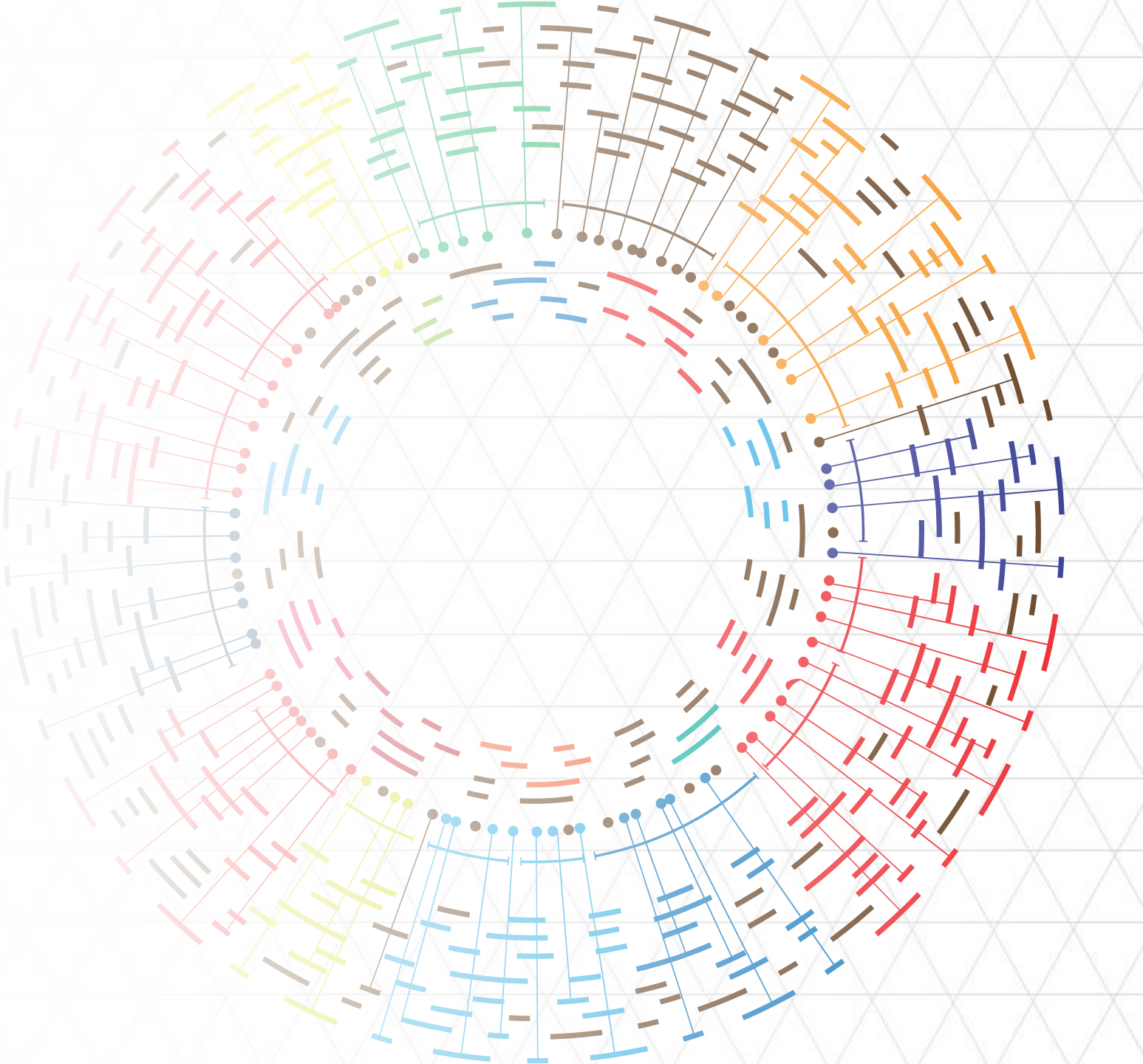
Adaptive biotechnologies®

Corporate Presentation

May 2020



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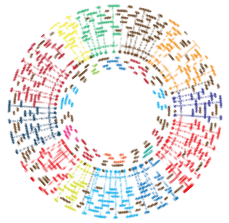
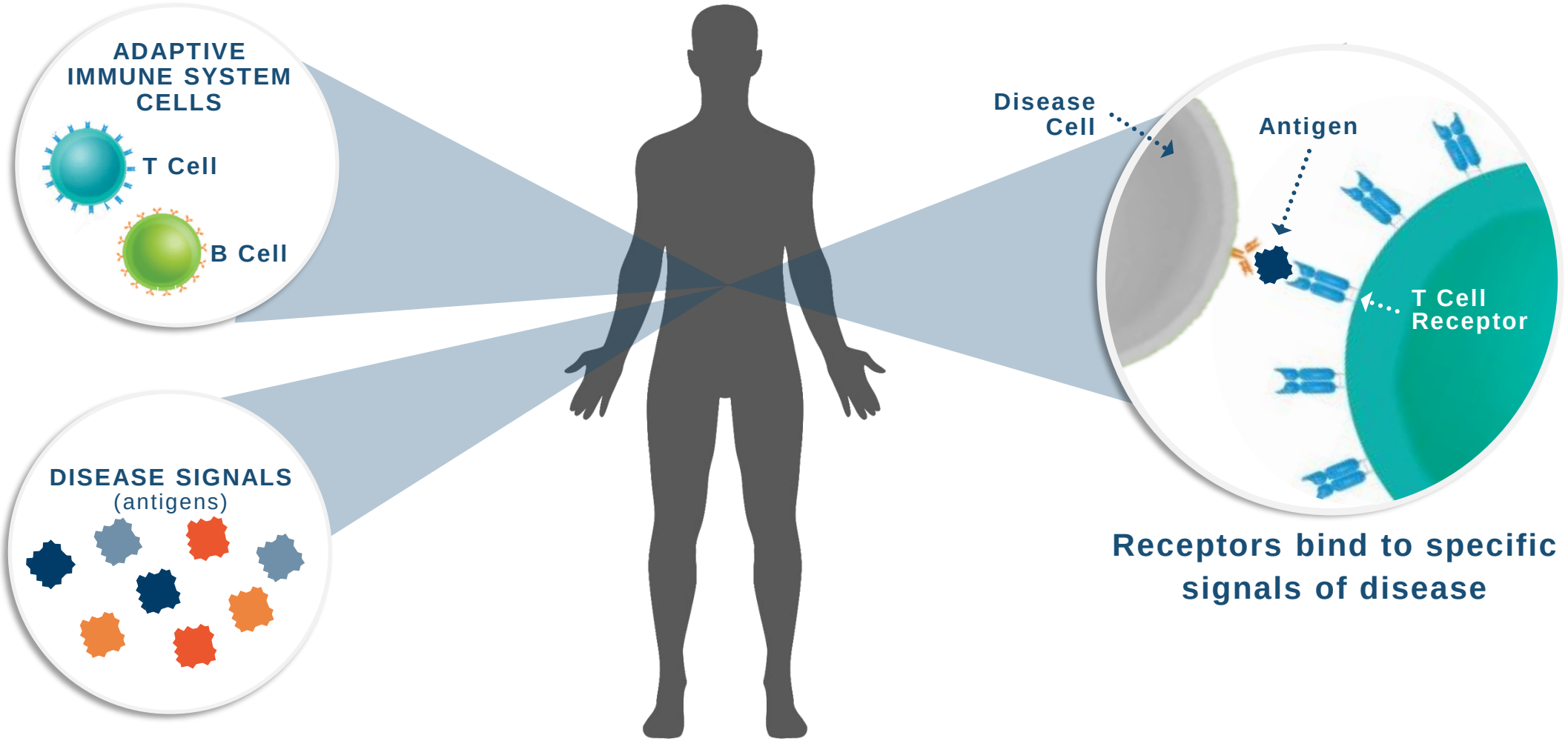
The Adaptive Immune System



One of the largest clinical applications of genomics

The immune system detects & treats most diseases in the same way



Revealing its massively diverse genetic code may transform medicine

INDIVIDUAL

30K
GENES
HUMAN GENOME

>100M
GENES
ADAPTIVE IMMUNE REPERTOIRE

POPULATION

TRILLIONS OF TCRs

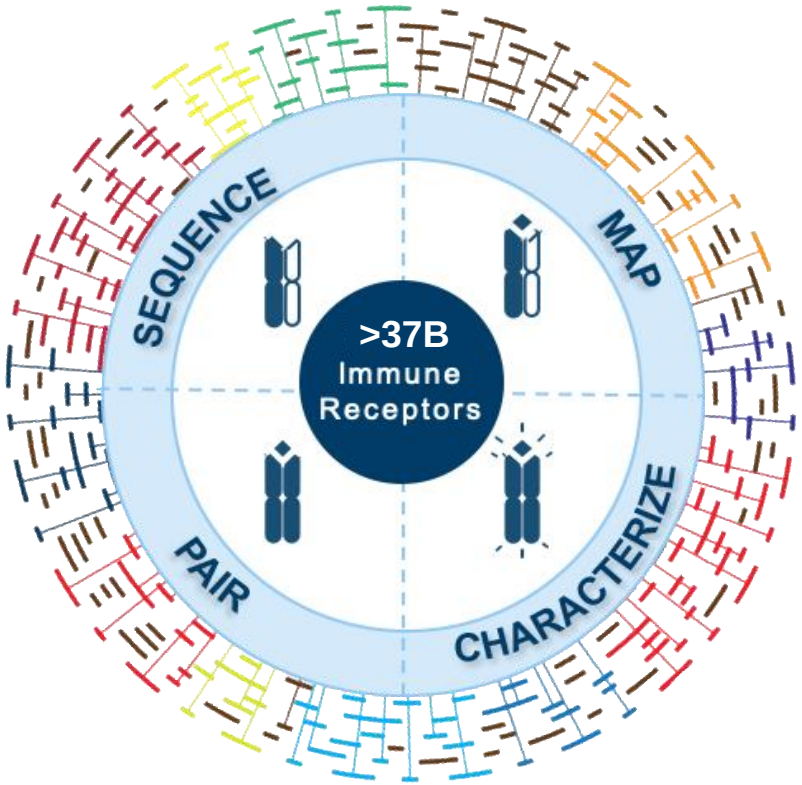
MILLIONS OF ANTIGENS

Sensitive | **Specific** | **Amplifies** | **Systemic** | **Persistent**

Adaptive biotechnologies®

Harnessing the inherent biology of the adaptive immune system

One immune medicine platform



High margin, immune driven clinical products

	Life Science Research	Clinical Diagnostics	Drug Discovery
COMMERCIAL	immunoSEQ IMMUNO-SEQUENCING	clonoSEQ MRD MONITORING	
PIPELINE	**Product extension**: COVID/infectious diseases	Microsoft IMMUNOSEQ Dx Diagnose disease by the immune system	Genentech A Member of the Roche Group CELLULAR THERAPIES
PIPELINE	**Platform extension:** BCR pairing/selection		AMGEN ANTIBODY DISCOVERY

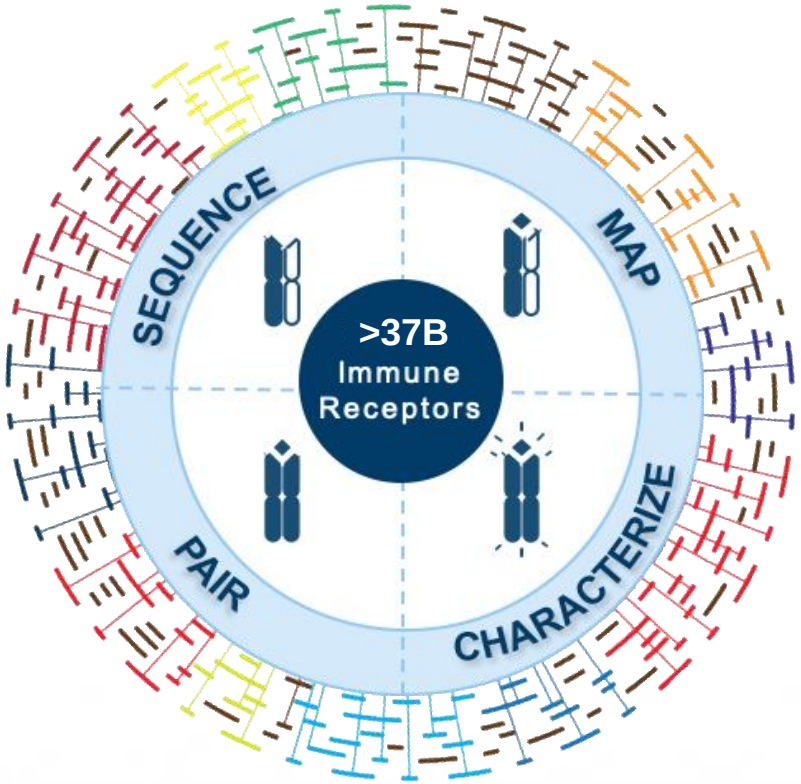
Note: immunoSEQ is for Research Use Only (RUO) and not for use in diagnostic procedures;
The clonoSEQ Assay is FDA-cleared for use in B-cell acute lymphoblastic leukemia and multiple myeloma patients to detect and monitor minimal residual disease (MRD) in bone marrow samples. clonoSEQ is also available for use in other lymphoid cancers as an LDT. For important information about the FDA-cleared uses of clonoSEQ, including test limitations, visit clonoseq.com/technical-summary

Adaptive biotechnologies®

One Platform, Two Commitments to Try to Help Solve COVID-19

Powerful and Versatile Immune Medicine Platform

SCALE ■ EFFICIENCY ■ ACCURACY



TCR Discovery

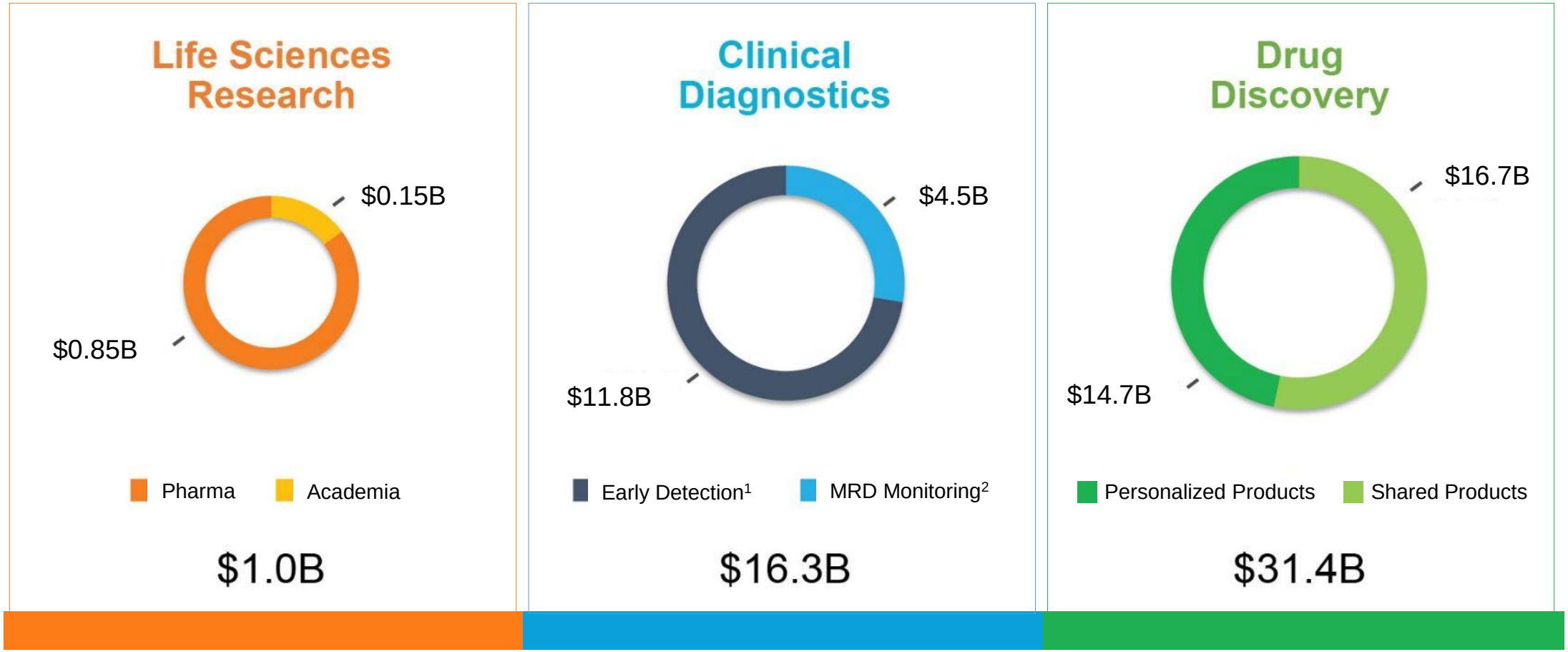
Microsoft
IMMUNOSEQ Dx
Diagnose disease by the immune system

BCR Discovery

AMGEN®
ANTIBODY DISCOVERY

Adaptive biotechnologies®

~$48B+ addressable market breaks down across 3 product areas



[1] Early detection includes ovarian cancer testing for high-risk women who are BRCA-mutation positive or who have been diagnosed or treated for breast cancer, and celiac disease testing for people who have undiagnosed gastrointestinal symptoms or who are first-degree relatives of people with a confirmed celiac diagnosis.
[2] MRD monitoring in ALL, MM, CLL, and NHL globally. Assumes 2-4 MRD tests per treatment cycle depending on indication and geography.

Key milestones achieved in 2019

immunoSEQ — IMMUNO-SEQUENCING

- Completed development of upgraded immunoSEQ Assay (lab & kit)

clonoSEQ — MRD MONITORING

- Achieved CLEP approval for patients in New York[1]
- Filed with FDA for CLL in blood
- Covered by Medicare and five private national payors

Microsoft — IMMUNOSEQ Dx

- Confirmed first signal in acute Lyme disease

Genentech, A Member of the Roche Group — CELLULAR THERAPIES

- Delivered data package for 1st selected TCR candidate

[1] Across all lymphoid malignancies in bone marrow and blood

Key milestones for 2020

immunoSEQ — IMMUNO-SEQUENCING

- Launch new immunoSEQ RUO kit

clonoSEQ — MRD MONITORING

- Achieve CMS coverage for CLL
- Launch clonoSEQ for CLL in blood
- File with FDA for ALL in blood

Microsoft — IMMUNOSEQ Dx

- Generate second clinical diagnostic signal
- Submit first indication to FDA

Genentech, A Member of the Roche Group — CELLULAR THERAPIES

- GNE to file IND for first shared product[1]

[1] Product candidates in development as part of our worldwide collaboration and license agreement with Genentech. The "1st Shared" and "2nd Shared" product candidates refer to the two lead clinical product candidates selected from our library of TCRs that target cancer antigens present in many cancer patients. Genentech will determine the timing of discussions with, and submissions to the FDA.

Adaptive biotechnologies®

Quantifying immunology with immunoSEQ

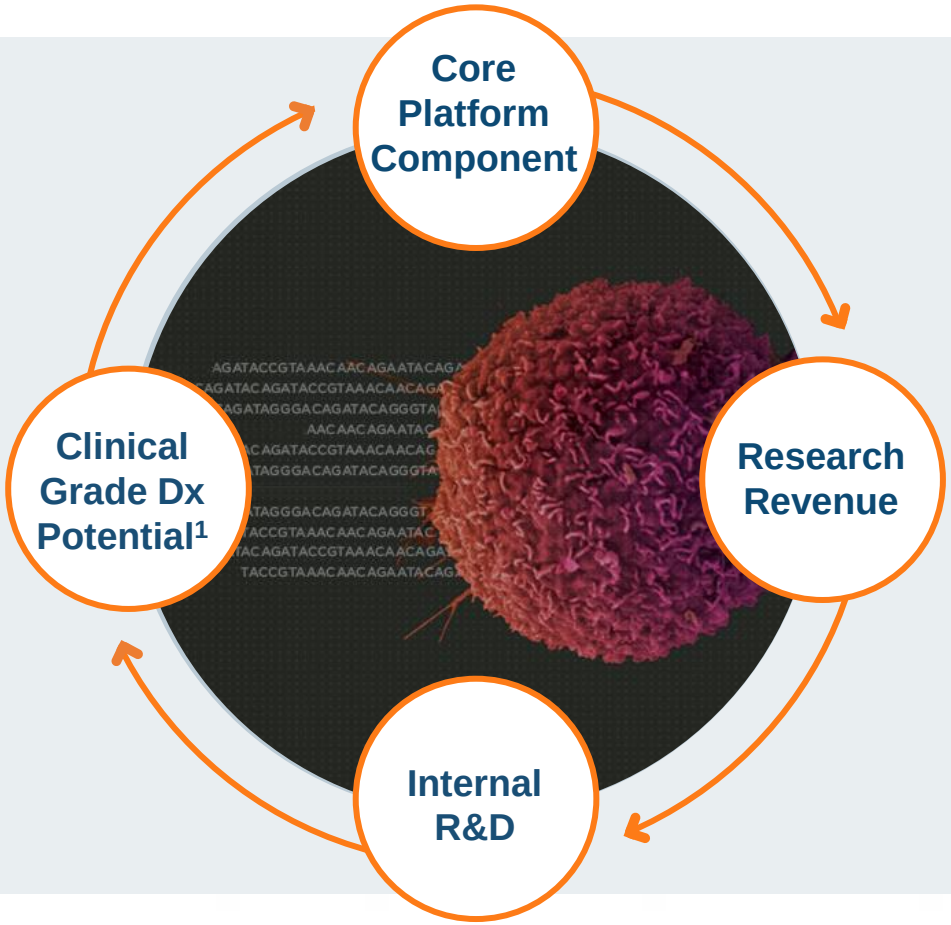
~$1B market opportunity

LIFE SCIENCE RESEARCH

SCALE

PRECISION

SPEED



~2,200
RESEARCHERS

165+
BIOPHARMA PARTNERS

650+
CLINICAL TRIALS

Note: immunoSEQ is for Research Use Only (RUO) and not for use in diagnostic procedures; Statistics stated as of November 20, 2019

[1] Subject to regulatory pathway.

Adaptive biotechnologies®

immunoSEQ: Establishing a gold standard for immunosequencing

LIFE SCIENCE RESEARCH

- Move into larger, later-stage trials
- Increase use outside of oncology
- Launch new kit for any sample type
- Partner to expand reach, including CROs
- Penetrate global distribution channels

New!

immunoSEQ **TCRB KIT**

Same technology that powers next generation of Dx and therapeutic research

Adaptive biotechnologies®

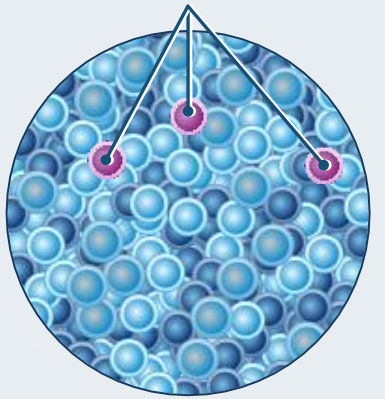
Monitoring minimal residual disease (MRD) in blood cancer

~$4.5B market opportunity for 4.6M patients

CLINICAL DIAGNOSTICS

- Patients are living longer on new therapies
- Clinicians need to monitor disease burden
- Pharma needs earlier response measures
- Guidelines include MRD in multiple diseases

clonoSEQ COUNTS
REMAINING CANCEROUS CELLS



FDA-cleared
MM and ALL, bone marrow

CLEP approval & LDT
MRD monitoring for B-cell and T-cell[1] cancers

Reimbursement
~200M+ covered lives

Note: Statistics stated as of November 20, 2019
[1] MRD monitoring for T cell cancers is not FDA-cleared or CLEP approved and is solely part of Adaptive's LDT services

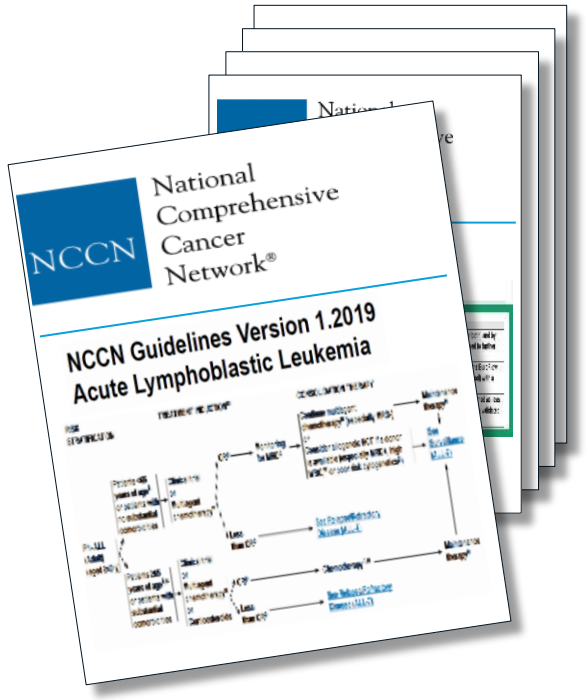
Adaptive biotechnologies®

MRD offers broad clinical utility

CLINICAL DIAGNOSTICS

Potential role of clonoSEQ throughout treatment

- **Use for prognosis**
  MRD status can be a powerful predictor of outcomes
- **Assess response**
  Post induction and consolidation, MRD guides treatment intensity
- **Delay transplant**
  MRD negative patients may delay or avoid need for SCT
- **Discontinue maintenance**
  Maintaining MRD negativity may guide duration of maintenance treatment



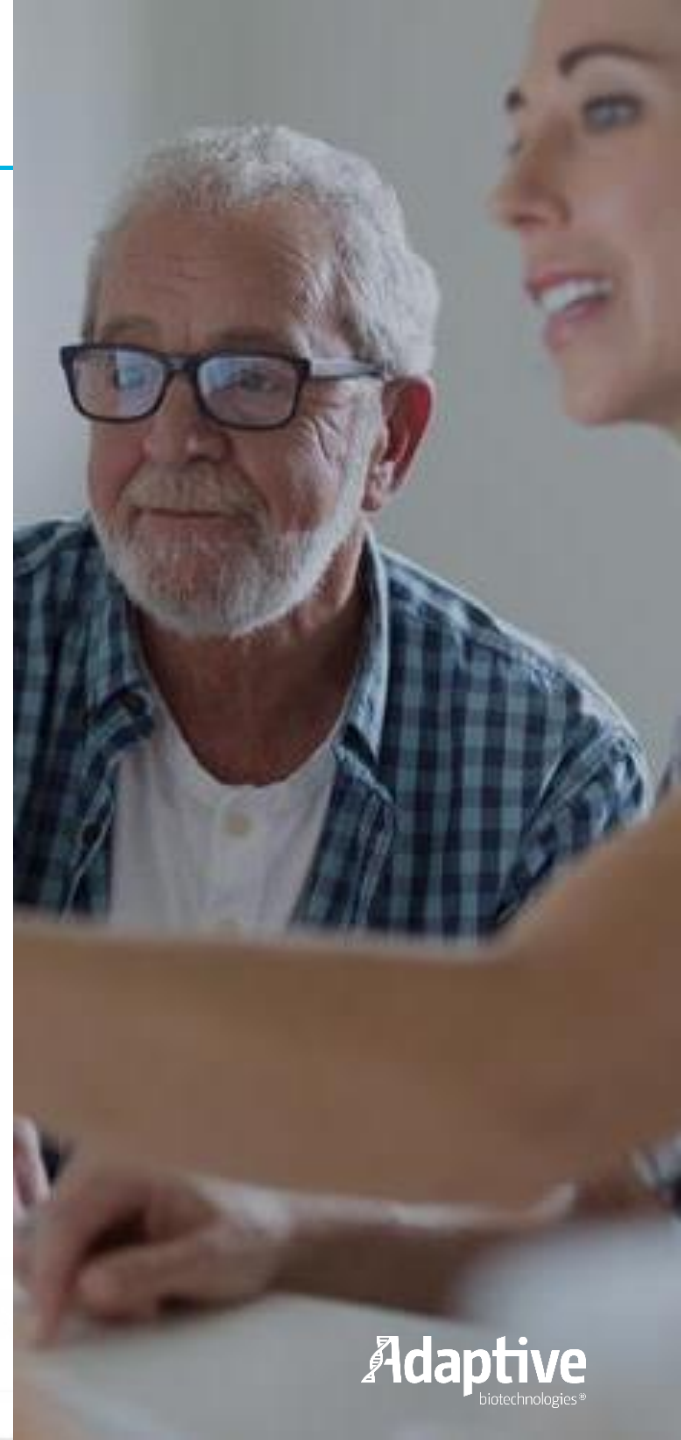
Body of evidence is rising across a broad spectrum of disease states

>300 MRD-related abstracts & >25 clonoSEQ abstracts at ASH

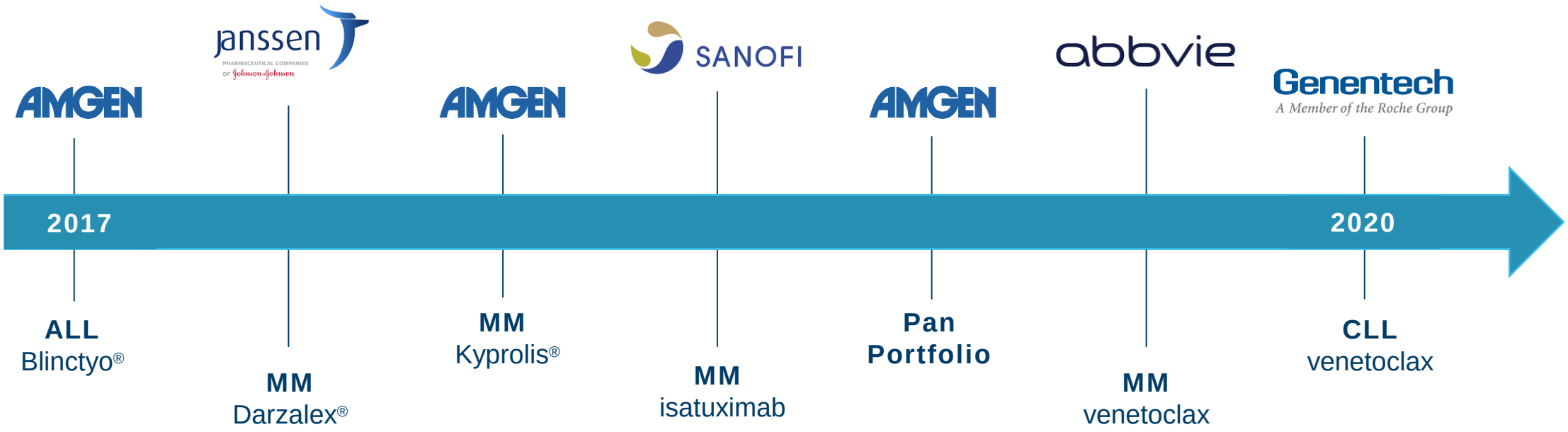
Adaptive biotechnologies®

clonoSEQ positioned to capture market share

- **Sensitivity** of technology at **10^{-6}**
- Strong IP position with **9** issued patents for monitoring MRD to date
- Incorporated into **> 40 ISTs** and **66** peer-reviewed publications
- Standard measurement for **>200** MRD pharma trials
- Significant reimbursement in place with **>200M** covered lives
- Product and services integration into **>130** key accounts



clonoSEQ is becoming a standard measure of MRD in pharma trials



- >40 partners
- >200 trials
- ~$130M+ milestone payments
- Asset- or portfolio-based

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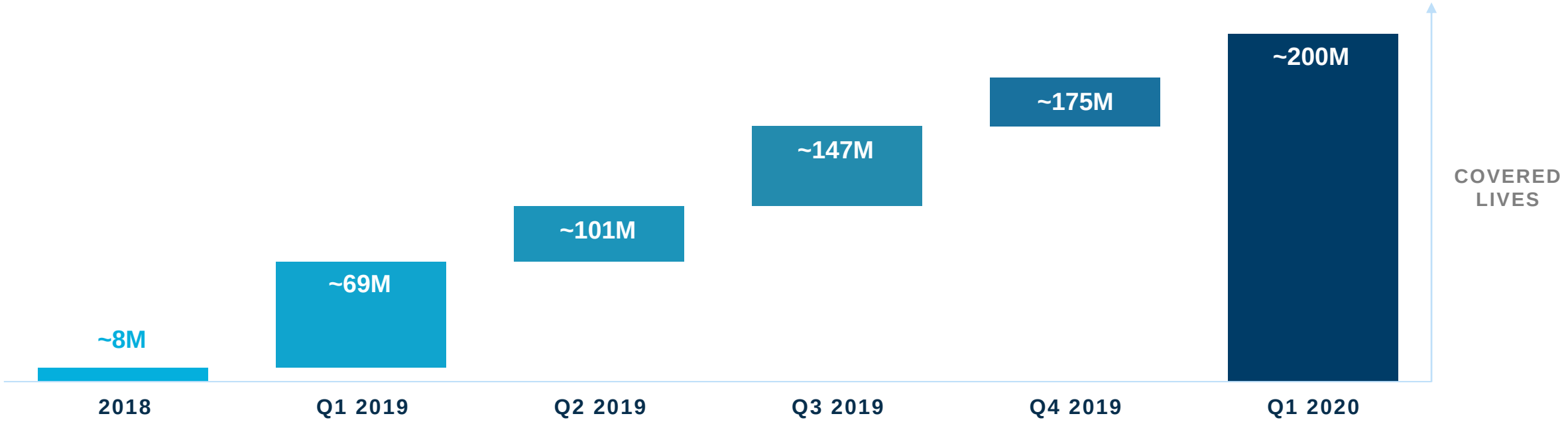
clonoSEQ is achieving notable reimbursement success

CLINICAL DIAGNOSTICS



aetna™ — ALL, MM

Cigna — ALL, MM

UnitedHealthcare® — MM

Medicare — ALL, MM, CLL

Anthem — ALL, MM

KAISER PERMANENTE® — Broad coverage

Adaptive biotechnologies®

clonoSEQ is gaining traction within clinical practices across the US

Adoption to date

- ~130 accounts
- >9,500 unique patients

2020 Focus

- Activate & train accounts
- Expand use cases
- Drive demand
- Engage patients

CLINICAL DIAGNOSTICS

[1] Approved and covered indications

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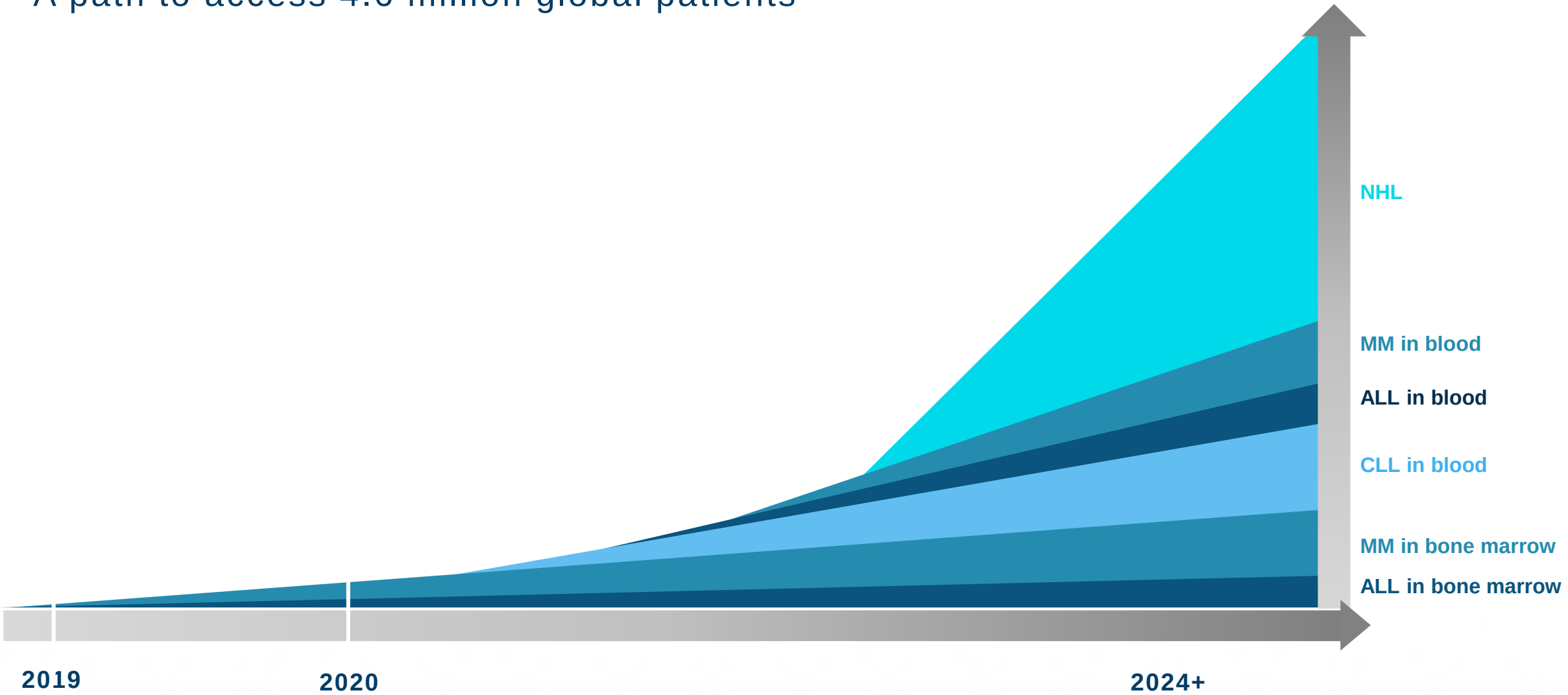
clonoSEQ volumes will scale with increasing access to patients

A path to access 4.6 million global patients



CLINICAL DIAGNOSTICS

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immunoSEQ Dx: TCR-Antigen Map for diagnosis of multiple diseases

~$11.8B market opportunity

CLINICAL DIAGNOSTICS

Diagnostic odyssey…

- Diseases difficult to diagnose
- Some diagnoses can take 3-5 years
- Often inaccurate
- Poor or no diagnostic for many diseases

Earlier intervention would improve patient outcomes

2
EARLY CLINICAL SIGNALS

2019
CONFIRMED SIGNAL IN LYME

GOAL
BECOME PART OF PRIMARY CARE

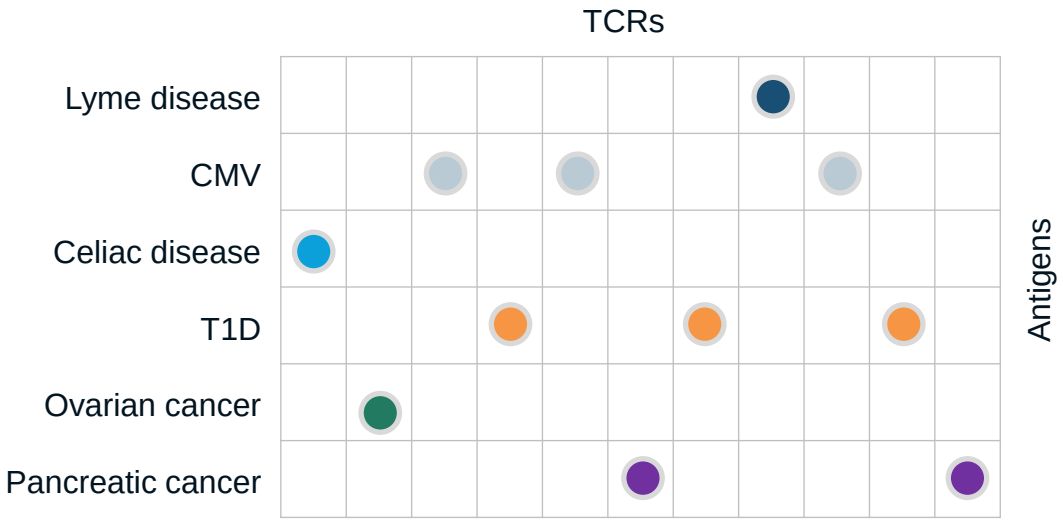
Microsoft + Adaptive biotechnologies®

Note: Statistics stated as of November 20, 2019
Product in development, not for clinical use.

immunoSEQ Dx: Building the Antigen Map at the population level

CLINICAL DIAGNOSTICS

MAP TCRs to Disease Antigens



Self-Learning Diagnostic

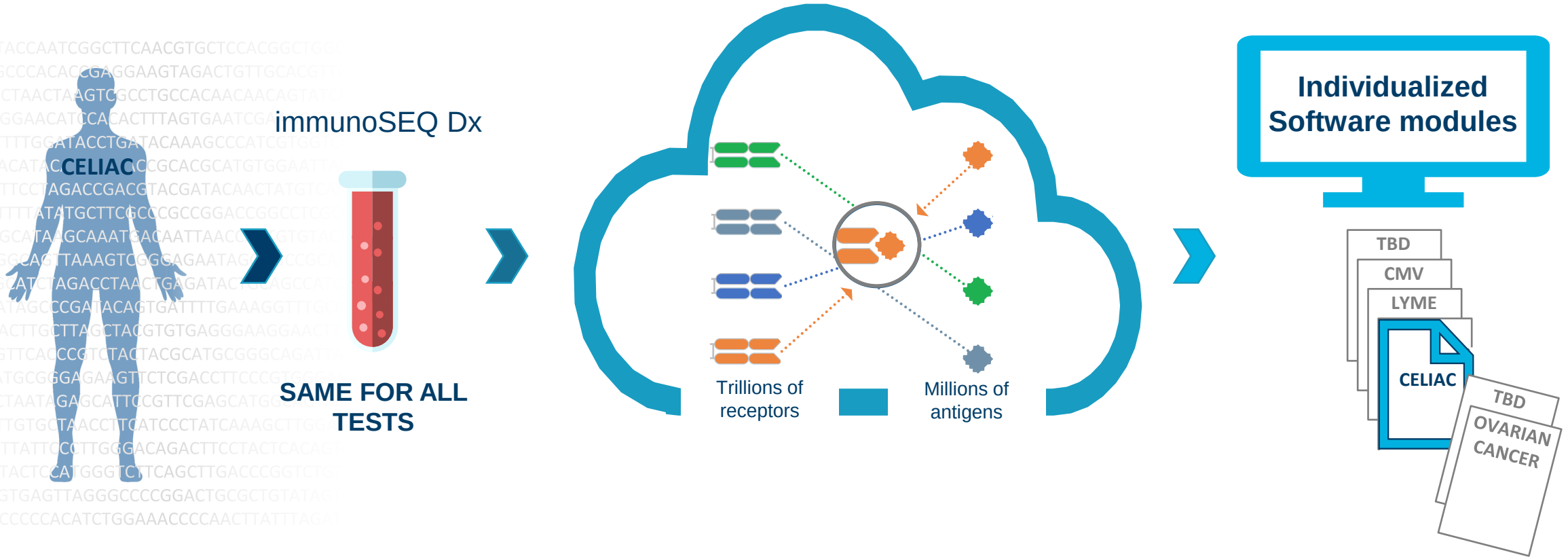
- Run naïve blood to map receptors to antigens
- Collaborate on studies with control groups
- Leverage database of unlabeled samples

Note: ~50-100M TCRs per human; ~10-50 TCRs per antigen; ~5-7 antigens that elicit disease response

Microsoft + Adaptive biotechnologies®

Using the map at the individual patient level

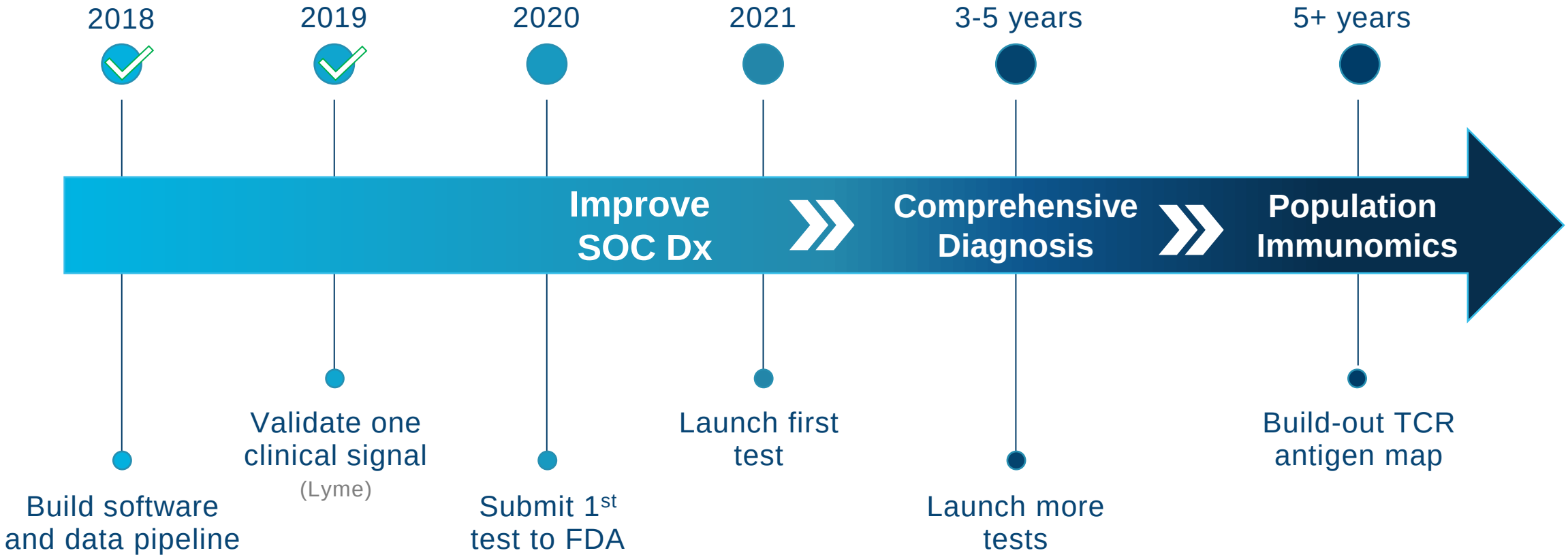
CLINICAL DIAGNOSTICS



Microsoft + Adaptive biotechnologies®

immunoSEQ Dx: Transforming the diagnosis of human disease

CLINICAL DIAGNOSTICS



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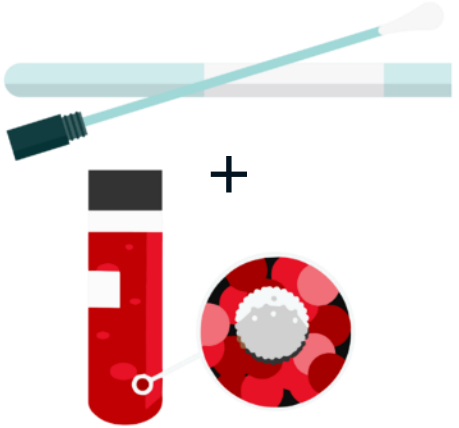
COVID-19 program – ImmuneRACE study

- ***Launched within 5 weeks (4/24/20)***
- Approximately 1,000 adult participants
  - **Cohort 1**: Exposed
  - **Cohort 2**: Active infection
  - **Cohort 3**: Recovered
- Key metadata, permission to access records
- Serial sampling (X4) in some subjects

Participant enrolls

Participant completes questionnaire



Blood draw + nasal or OP swab
Option for multiple samples over 2 months

CLINICAL DIAGNOSTICS

Adaptive biotechnologies®

Leveraging the immune system to treat disease

~$31.4B market opportunity for >100,000 metastatic patients[1]

DRUG DISCOVERY

- Cell therapies showing great efficacy
  - Limited to surface markers only
- T cell receptors are cancer specific
- Our platform generates highly potent TCRs against cancer antigens

TWO COMPANIES LED BY SCIENCE

Adaptive biotechnologies + Genentech A Member of the Roche Group

$300M
Upfront payment

$1.8B
In milestone payments

Royalties in mid-single digit to upper-teen range

[1] Patients with select tumor types who have at least one of the antigens that may be prioritized in the collaboration

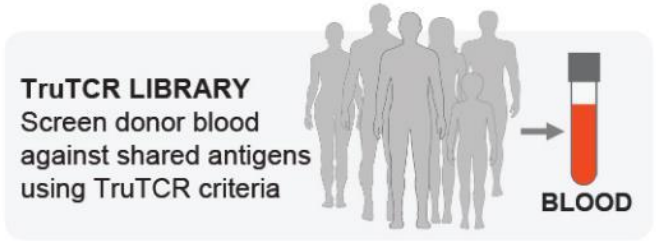
Developing novel neoantigen directed T cell therapies

DRUG DISCOVERY

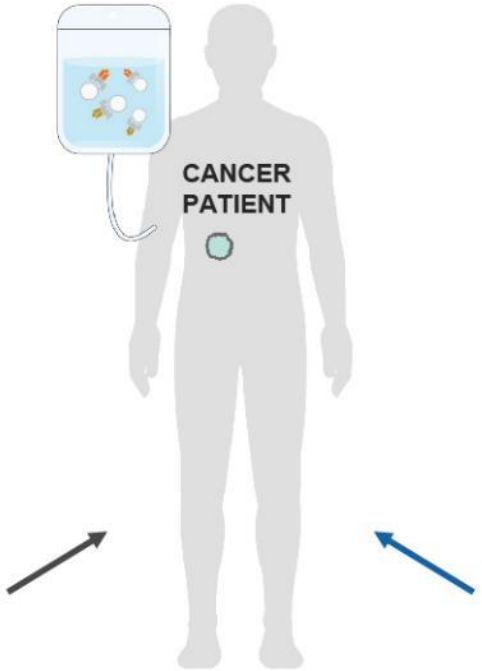
SHARED PRODUCTS

1. Profile DNA in patient tumor to determine immunogenic antigens and neoantigens

2. Select TCRs against shared antigens from TruTCR Library



3. Deliver TCRs to patient whose tumor expresses shared antigen(s)



PERSONALIZED PRODUCT

1. Profile DNA in patient tumor to determine immunogenic antigens and neoantigens, and sequence blood for TCRs

2. **Screen in real-time** for TCRs against patient-specific neoantigens using Adaptive's TCR discovery platform

3. Engineer cell therapy with patient-specific TCRs, **manufacture in real-time** for each patient

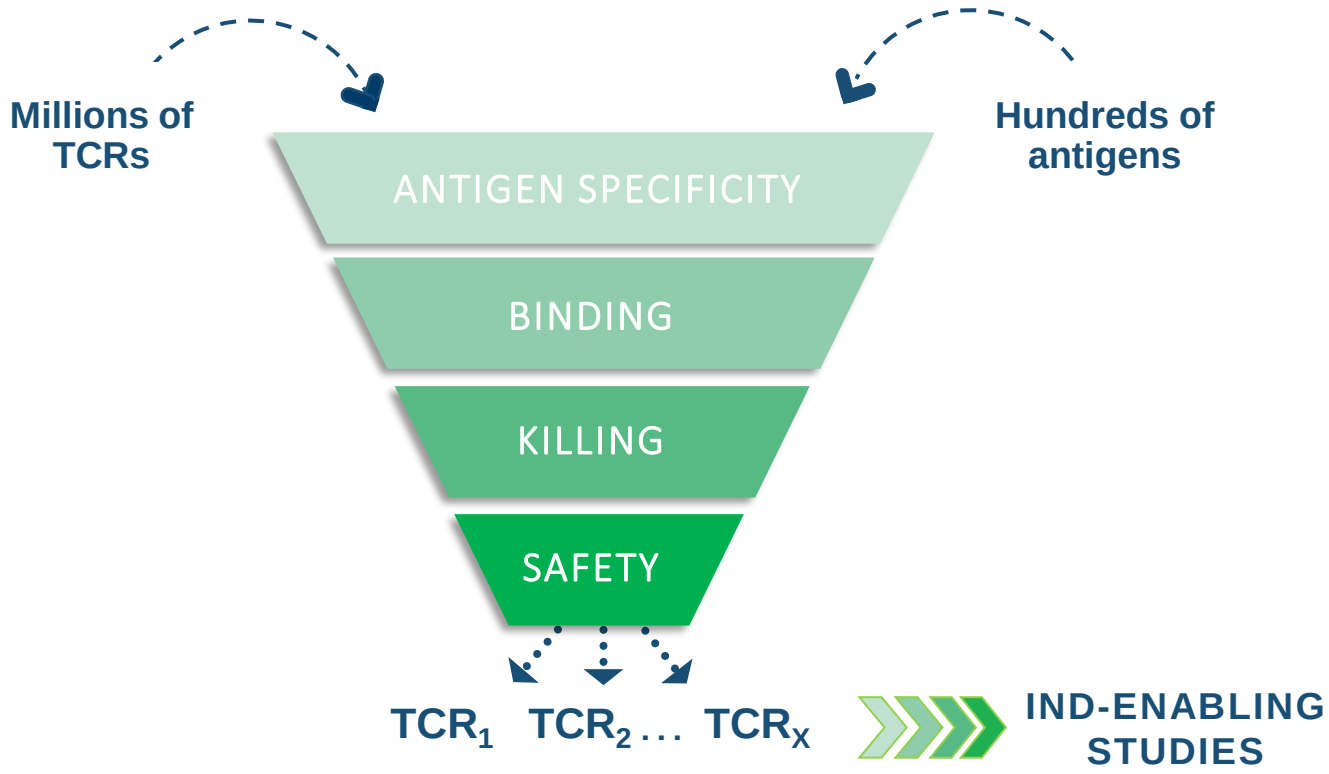
4. Deliver fully personalized therapeutic TCRs to patient

DUAL TCR CELLULAR THERAPY APPROACHES

Adaptive biotechnologies®

Shared product: identifying optimal clinical TCR candidates

DRUG DISCOVERY



Building the TruTCR library:

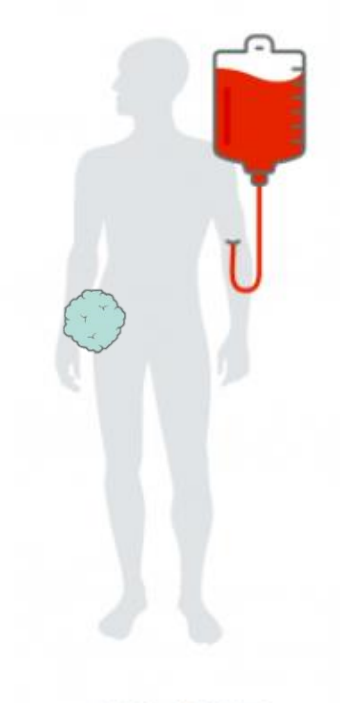
3,000
unique, naturally occurring TCRs

~600
clinically relevant targets

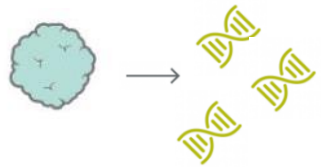
Adaptive biotechnologies®

Personal product: identify best TCRs to a patient's unique neoantigens

DRUG DISCOVERY

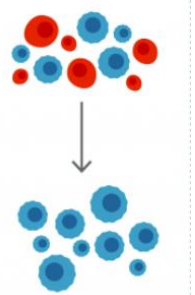


COLLECT BLOOD AND TUMOR TISSUE FROM PATIENT



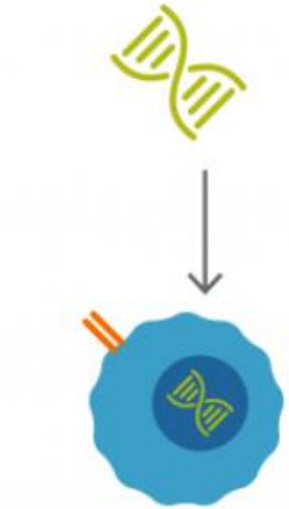
PROFILE TUMOR

&

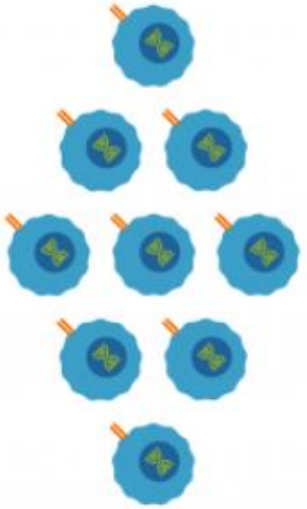


ISOLATE AND STIMULATE T-CELLS

USING ADAPTIVE'S PLATFORM TO IDENTIFY TCRS IN REAL TIME



NEOANTIGEN-DIRECTED TCR ENGINEERING



EXPAND T-CELL

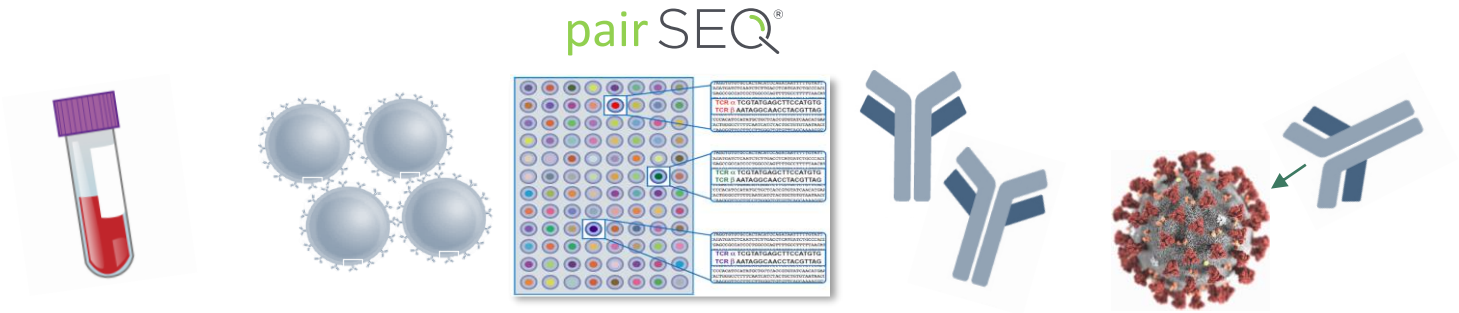
INFUSE WITH ENGINEERED NEOANTIGEN DIRECT-T-CELLS

ONE-MONTH VEIN TO VEIN

Adaptive biotechnologies®

COVID-19: Antibody discovery workflow

DRUG DISCOVERY



1 — **Patient Blood Samples** (10-40mL)^

2 — **Sort antibody secreting cells** + **Sort antigen-specific memory B cells** + **Serum**

3 — **BCR pairSEQ**

Run BCR immunoSEQ to determine BCR frequency in each population
+
Sequence BCR heavy + light chain pairs in each cell population
+
Identify fully human antibody sequences in fast turnaround time

4 — **Antibody Synthesis**

Make antibodies from antigen-specific BCR paired sequences

5 — **Target Specificity**

Screen for specificity to virus

6 — **Neutralization Assays**

Screen for virus neutralization
+
Rank order neutralizing antibodies

Development

R&D on candidate neutralizing antibodies

Adaptive biotechnologies — BCR Discovery + Characterization → AMGEN® — Selection + Development →

^ COVID-19 patient blood to be shipped to Adaptive within 6hrs. of collection

Adaptive biotechnologies®

Clinical portfolio and pipeline

Diagnostic Product Plan	Signal Discovery	Clinical Validation	FDA Submission	FDA Clearance
Monitor MRD: clonoSEQ®	Multiple Myeloma ✓			
	Acute Lymphoblastic Leukemia ✓			
	Chronic Lymphocytic Leukemia			
	Non-Hodgkin's Lymphoma (Subtypes)			
Early Detection: immunoSEQ® Dx	Lyme Disease			
	Celiac Disease			
	Ovarian Cancer			
	COVID-19			

Drug Discovery Product Plan	Early Development	IND Submission	Clinical Development
TCR-Based Cell Therapies*	1st Shared		
	2nd Shared		
	Personalized		
Neutralizing Antibodies**	COVID-19		

* Product candidates in development as part of our worldwide collaboration and license agreement with Genentech. The "1st Shared" and "2nd Shared" product candidates refer to the two lead clinical product candidates selected from our library of TCRs that target cancer antigens present in many cancer patients. Genentech will determine the timing of discussions with, and submissions to the FDA.

** Product candidates in development as part of our collaboration with Amgen.

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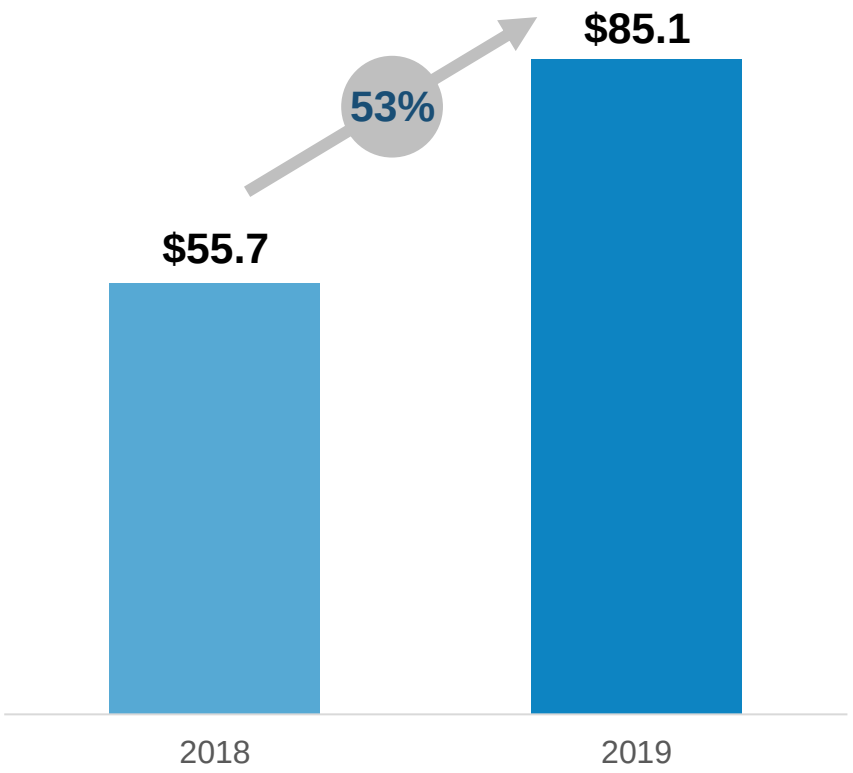
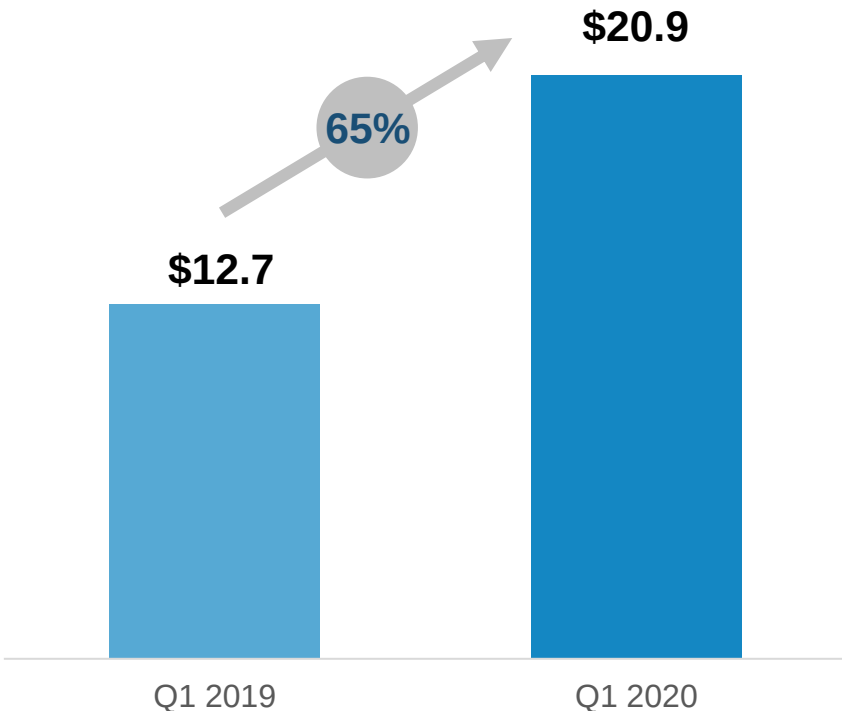
Financial highlights

REVENUE (Millions)





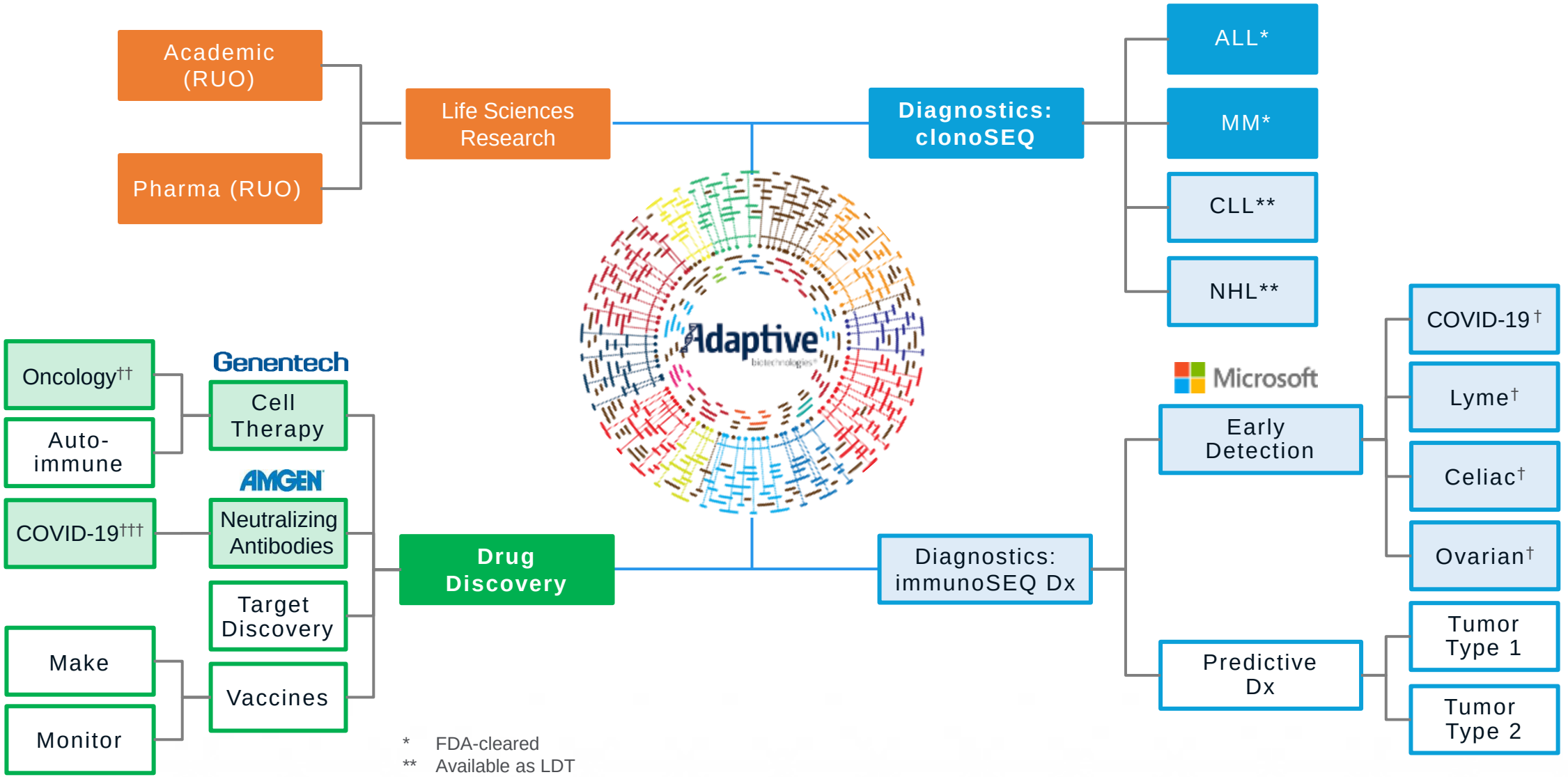
- Strong balance sheet with **~$656 million** in ending cash, cash equivalents and marketable securities as of March 31, 2020

Adaptive biotechnologies®

Bold vision and disciplined execution

- Drive reach and utility of our products to catalyze adoption
- Scale our footprint to support revenue and volume expectations
- Grow team and opex to preserve long term margin potential
- Ensure adequately capitalized to meet long term goals
- Innovate and extend the platform beyond current products

Multiple opportunities for growth



* FDA-cleared
** Available as LDT
† Pipeline Diagnostics
†† Pipeline Cell Therapy
††† Pipeline Neutralizing Antibodies

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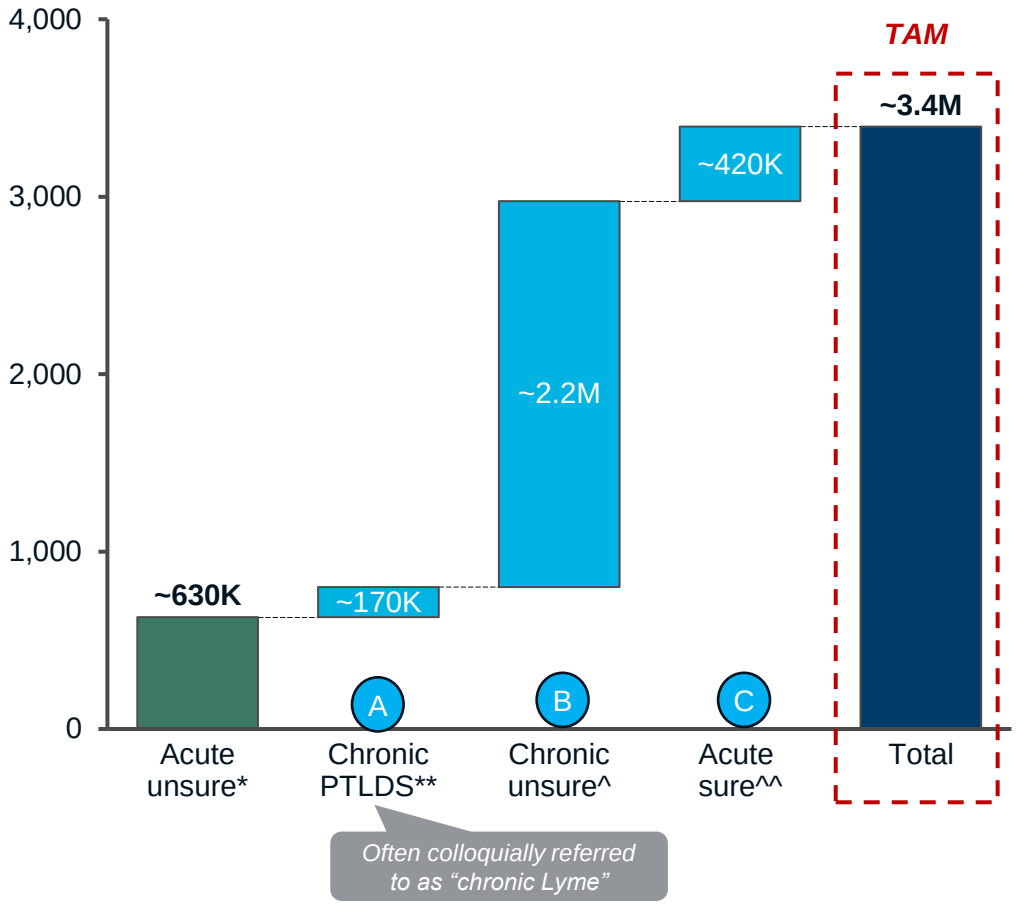
Lyme Program – Commercial Opportunity

U.S. patients with suspected Lyme disease
(2020)
Thousands of patients



- There are ~3.4M U.S. patients concentrated in endemic regions who may require Lyme disease (LD) testing each year
- ~630K patients with potential acute infection (< 30 days, where SOC performs poorly) that are not easily recognized as LD (**acute unsure***) have highest unmet need for an improved diagnostic
- **Acute unsure** patients represent a $350 – 450M opportunity that requires
  - Reimbursed price of $600 – 700 per test
  - Commercial channel access to primary care in endemic regions
  - Clinical trial evidence for ImmunoSEQ in patients with and without EM rash
- The additional ~2.8M patients represent an evolutionary opportunity for ImmunoSEQ once the test is established
  - A ~170K **chronic PTLDS**** patients
  - B ~2.2M patients with potential chronic LD infection (> 30 days) where clinicians largely trust SOC performance (**chronic unsure^**)
  - C ~420K patients with likely acute infection who are easy to recognized as having LD and treated empirically (**acute sure^^**)

Note: * Patients with flu-like symptoms and no recent tick bite + patients with non-descript symptoms and recent tick bite; ** Post-Treatment Lyme Disease Syndrome (PTLDS), a condition of unknown etiology consisting of persistent, subjective (e.g., fatigue, arthralgia) symptoms that are likely to occur in the absence of an LD infection; ^ Patients with non-descript symptoms + no recent tick bite; ^^ Patients with hallmark symptoms (e.g., EM rash) + patients with flu-like symptoms and recent tick bite
Source: L.E.K. interviews and analysis

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