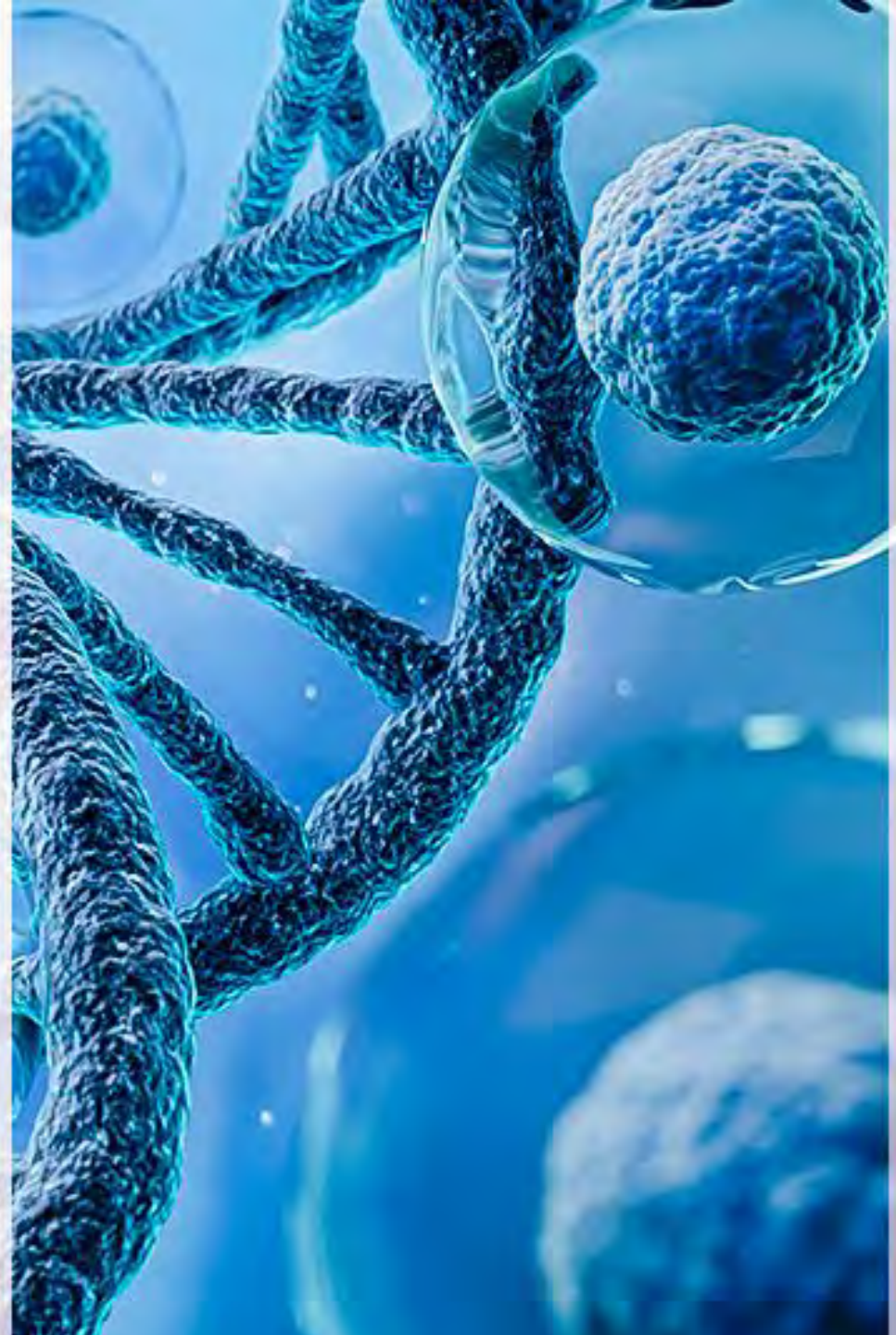
BAYLOR
GENETICS

INTRODUCTION TO BAYLOR GENETICS

Sept, 2024



BAYLOR
GENETICS

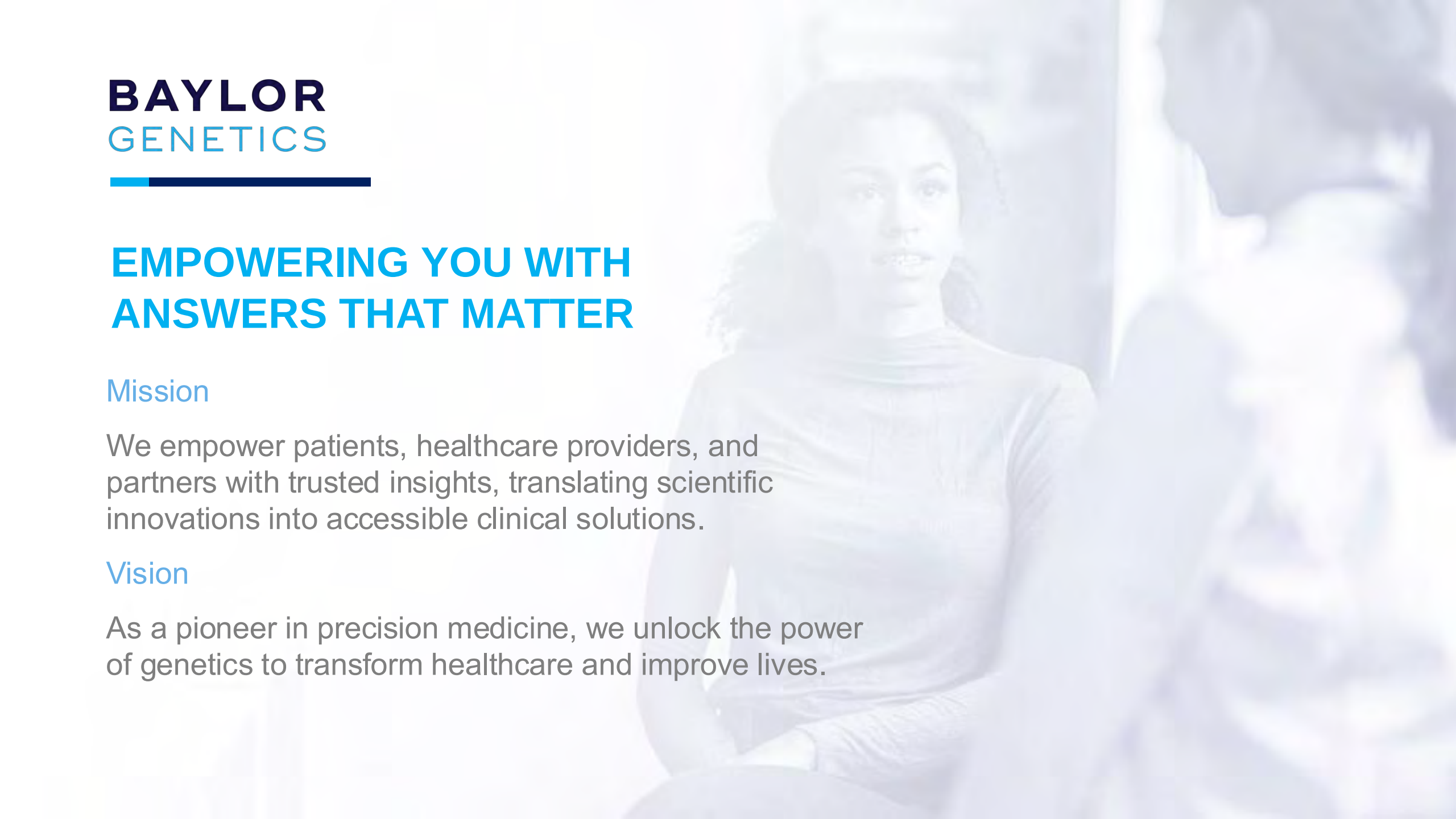
EMPOWERING YOU WITH ANSWERS THAT MATTER

Mission

We empower patients, healthcare providers, and partners with trusted insights, translating scientific innovations into accessible clinical solutions.

Vision

As a pioneer in precision medicine, we unlock the power of genetics to transform healthcare and improve lives.



// PROFILE AND OVERVIEW

BAYLOR GENETICS

BUSINESS
Genetic Testing Services

JOINT VENTURE
H.U. Group Holdings
Baylor College of Medicine

PRODUCTS & SERVICES
Diagnostic Genomics
Partner Lab Services

HEADQUARTERS
Texas Medical Center - Houston

CERTIFIED LAB

Clinical Laboratory Improvements Amendments

cap ACCREDITED

45+ years of Innovation

2023 Gold Merit Award in Healthcare Research

300+ Employees

3000+ Customizable Test Menu

250+ Scientific Publications

Research Commercialization

Baylor College of Medicine
#1 NIH funded in genetics

4 Million+ Clinical Tests

Performed to date

80+ Partners

Life Sciences, Pharma
Precision Medicine

National & Global Reach

50 states – 16 Countries

// TRACK RECORD OF INNOVATION

SCIENTIFIC AND CLINICAL IMPACT

1978 — Founded by Dr. Tom Caskey & Dr. Art Beaudet, focused on cytogenetics

1996 — Baylor College of Medicine Human Genome Sequencing Center (HGSC) designated as a pilot program of the Human Genome Project (HGP)

2000 — HGSC completes the Human Genome Project

2008 — Prenatal Chromosomal Microarray testing

2011 — Whole Exome Sequencing

2012 — Cancer Exome testing

2013 — Mitome screening

2014 — Metabolomic Assisted Pathway Screen (MAPS)

2015 — H.U. Group / BCM Joint Venture – Academic research to commercial lab
Prenatal Trio-WES
Universal carrier screening

2016 — Single gene non-invasive prenatal test (NIPT)

2019 — Clinical Whole Genome Sequencing (WGS)

2020 — COVID-19 infectious disease test

2022 — Rapid Whole Genome Sequencing – 5-day turnaround time

// PROVEN LEADERSHIP TEAM

DECADES OF EXPERTISE IN HEALTH AND TECH

MANAGEMENT TEAM

Kengo Takishima
President & Chief Executive Officer

Christine Eng, MD
Chief Medical Officer
& Chief Quality Officer

Chris Sands
SVP, Sales & GM,
Diagnostic Genomics

Kim Davis
AVP, Commercial Operations

Jerry Wang
SVP, Business Development,
Emerging Business, & Strategic Alliances

Fan Xia, PhD
SVP of Clinical Genomics

Ji He, PhD
Chief Technology Officer

Carinna Cappadona
SVP, Customer Operations

Ed Gala
VP, Brand Marketing
& Communications

Jamie Parker
AD, Talent Acquisition

Susan Capps
VP, Market Access

Li Shen
Chief Accounting Officer

David Berger
Chief Legal Officer

Suzanne Speak
VP, Human Resources

Jonathan Tegbe
Director, Business Alignment

Shannon Kieran
VP, Product Management

SCIENTIFIC ADVISORY BOARD

Brendan Lee, MD, PhD
Robert and Janice McNair Endowed Chair in Molecular and Human Genetics, Professor & Chairman, Molecular and Human Genetics, Baylor College of Medicine

Sharon E. Plon, MD, PhD
Dan L .Duncan Comprehensive Cancer Center Professorship, Baylor College of Medicine

Ignatia Barbara Van den Veyver, MD
Professor, Departments of Obstetrics and Gynecology and Molecular and Human Genetics, Baylor College of Medicine

SCIENCE AND MEDICINE

- 25+ ABMGG-certified PhD or MD lab directors, scientists and CGC genetic counselors

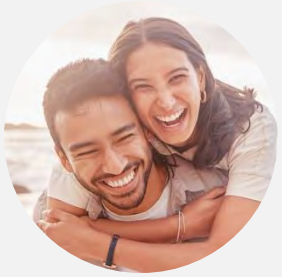
TECHNOLOGY AND BUSINESS

- Broad experience at enterprises including GE, GeneDx, Invitae, MD Anderson, Myriad Genetics, PerkinElmer, Pfizer, and Roche
- Recognized on association boards, fellowships, 2023 top healthcare leader lists and merit awards

DOMAIN EXPERTISE

- Clinical and commercial
- Healthcare, biotech, life sciences, pharma, technology, strategy

// SERVING PATIENT AND PROVIDER NEEDS

Patients ~ to date	 430,000+ Individuals planning a family	 60,000+ Pregnant women seeking diagnoses	 57,000+ Newborn babies	 200,000+ Children	 250,000+ People at risk for cancer
Healthcare Providers	Genetic Counselors	OB/GYNs	Critical care	Pediatricians	Oncologists
Medical Conditions	Reproductive Health	Prenatal	Rare Diseases	Developmental Delays	Inherited Mutations
Tests	Carrier screening	Non-invasive prenatal testing	Whole Genome / Exome Sequencing		Hereditary cancer

// COMPREHENSIVE MULTI-OMIC TESTING

Whole Genome / Exome

- Comprehensive tests for complex cases
- High diagnostic yield in one test
- Fastest **rapid turnaround** – as soon as 5 days
- Re-analysis

Chromosomal Microarray

- Product range and flexibility
- Exon coverage of 5000+ genes
- 100k+ microarrays
- Complementary test options

Reproductive Health

- Prenatal multigene sequencing and carrier screening
- **PreSeek™** non-invasive prenatal screen
- **GeneAware™** reproductive carrier screen

Oncology

- Somatic and germline
- Hereditary Cancer with RNA seq reflex
- CMA exon coverage
- Cytogenetics and FISH

Biochemical

- Enzymes, proteins and metabolites
- **Global MAPS™** one-of-a-kind single test for inborn metabolic disorders

Molecular Diagnostics

- Customizable testing
- Disease-specific panels with WGS reflex
- Nuclear and Mitochondrial
- RNA sequencing

Advantages Multidisciplinary assessment, industry-leading rapid turnaround time, flexible sample types, personalized treatment guidance, clinical support

// SCIENTIFIC RESEARCH AND KNOWLEDGE SHARING

Collaborative Research

Undiagnosed Diseases Network

THE MEDICAL GENOME INITIATIVE

National Institute of Allergy and Infectious Diseases

AGTC Centers for Mendelian Genomics

PreNatalSeq

Peer Reviewed Publications and Presentations

- 250+ research studies and presentations
- 8 scientific studies[1] in major medical journals
- 13+ abstracts at top 2023 industry conferences
  - Reviewer's Choice for WGS dual diagnosis at ASHG
- 100+ new disease mechanisms discovered
- Data sharing with ClinVar

JAMA · nature · New England Journal of Medicine · ASHG American Society of Human Genetics · NORD National Organization for Rare Disorders

Clinical Genetics · PubMed.gov · ClinVar · ACMG · National Society of Genetic Counselors

Source

1. *Baylor Genetics publications - PubMed*

// CUSTOMER-CENTRIC SERVICE MODEL

SEAMLESS ORDERING

- Enhanced online portal for provider ordering
- Prior auth & consent
- Instant OOP quotes
- EMR integrations
- Bidirectional chat

FLEXIBLE SAMPLE TYPES

- Blood
- Extracted DNA
- Cultured cell
- Self-collection
  - Saliva / Buccal swab
- Tracking & reporting

CLINICAL SUPPORT

- Genetic Counseling resources
- Case conferences, grand rounds
- Dedicated customer service & support tools

EXPANDED COVERAGE

- 34 US health plans - 7.8M new covered lives in 2023
- Contracts with top 5 national payors

United Healthcare Anthem aetna cigna Humana

STREAMLINED BILLING

- Financial assistance
- Flexible payment options for outpatient clients
- Institutional billing with Lab Services Agreements

Simplifying the customer journey

// STATE-OF-THE-ART TESTING LABORATORY

AUTOMATED WORKFLOWS

- Robotics, predictive analytics
- AI, machine learning
- 300,000 samples / yr

MULTI-OMICS PLATFORM

- Flexible, scalable testing capabilities
- Custom solutions and assays
- 2 petabytes of sequencing data / yr

ADVANCED TECHNOLOGY

- New NovaSeq X sequencing high throughput clinical apps - 1st in Texas
- 73,000 sf testing hub

CURATED DATASETS

- 3.6 million+ validated clinical patient datasets
- Clinical trial, biomarker, drug discovery support

PARTNER SERVICES

- Strategic partnerships - life sciences, biotech & pharma
- Assay development, testing, validation and collaborative research

ANALYTICAL EXPERTISE

- 19 board-certified clinical Lab Directors
- Faculty of Baylor College of Medicine

CERTIFIED & ACCREDITED

Clinical Laboratory Improvements Amendments

CAP ACCREDITED™

NEW YORK STATE Department of Health

CA, FL, MD, PA, RI

// OUR PARTNERS

NATIONAL RESEARCH PARTNERS

NIH

Baylor College of Medicine

Undiagnosed Diseases Network

TOP-RANKED HEALTH SYSTEMS

Boston Children's Hospital
Until every child is well

BRIGHAM HEALTH
BRIGHAM AND WOMEN'S HOSPITAL

Children's Hospital of Philadelphia

CommonSpirit

David Geffen School of Medicine

Duke University School of Medicine

MAYO CLINIC

MILLER SCHOOL of MEDICINE
MIAMI

Seattle Children's
HOSPITAL • RESEARCH • FOUNDATION

Texas Children's Hospital

The University of Utah
School of Medicine

VANDERBILT HEALTH

Washington University in St. Louis
SCHOOL OF MEDICINE

// CONTACT US

BAYLOR GENETICS

www.baylorgenetics.com // 1-800-411-4363 // help@baylorgenetics.com

// APPENDIX

PRESSING PROBLEMS IN HEALTHCARE

- Access to fast, accurate diagnostics
- Many patients with genetic disorders discharged or die before a diagnosis
- Patients and families often face a long, frustrating and costly diagnostic journey, especially for complex cases

Genetic testing can help achieve the triple aim:

- Advance health outcomes
- Lower cost
- Improve the patient experience

~1 in 8 babies in pediatric intensive care units are misdiagnosed

30-50% of infant deaths are due to genetic disorders

40% of patients experience longer hospital stays and poor outcomes due to lack of accurate diagnosis

50% of healthcare providers select more clinically appropriate tests with genetic decision support

// COMPANY PROFILE

BAYLOR GENETICS

ESTABLISHED	1978 / Commercial Lab - 2015
HEADQUARTERS	Texas Medical Center - Houston
JOINT VENTURE	HU Group Holdings Inc; Baylor College of Medicine
BUSINESS	Genetic Testing Services
OFFERINGS	Diagnostic Genomics, Reference Lab Services
LAB CERTIFICATION	CA, FL, MD, PA, RI
REVENUE	40% growth (FY2023 YTD)

// KEY STRENGTHS AND ADVANTAGES

1st and only collaboration of its kind with Baylor College of Medicine (#1 NIH funded genetics program)

Robust clinical and genetic datasets

Customer-centric capabilities, tech tools, resources, and support

Recognized leader in Whole Genome Sequencing

Among top US genetic labs, serving leading industry partners

Strong customer relationships, long-term strategic partnerships

// SHARING SCIENTIFIC KNOWLEDGE AND DATA

- Supporting multiple national research initiatives in genetics
- Advancing clinical knowledge in genetics through published studies and abstracts
- Developing and sharing best practices in whole genome sequencing and precision medicine
- Contributing data to ClinVar and open industry databases

250+ peer-reviewed publications and presentations

8 scientific studies in top medical journals

13 abstracts at industry conferences in 2023 – Reviewer's Choice at ASHG

100+ new disease mechanisms discovered and shared

Collaborative Research

Undiagnosed Diseases Network

THE MEDICAL GENOME INITIATIVE

National Institute of Allergy and Infectious Diseases

AGTC Centers for Mendelian Genomics

Medical Journals

JAMA The Journal of the American Medical Association

nature International weekly journal of science

The New England Journal of Medicine

CLINICAL GENETICS An International Journal of Genetics, Molecular and Personalized Medicine

Scientific Presentations

ASHG American Society of Human Genetics

NORD National Organization for Rare Disorders

ACMG

National Society of Genetic Counselors

// COMPREHENSIVE AND UNIQUE TEST MENU

Whole Exome and Genome	Chromosomal Microarray	Reproductive Health	Oncology	Biochemical	Molecular Diagnostics
COMPREHENSIVE TESTS FOR COMPLEX CASES	PRODUCT RANGE & FLEXIBILITY	NON-INVASIVE PRENATAL TESTS & CARRIER SCREENS	SOMATIC AND GERMLINE INSIGHTS	ENZYMES, PROTEINS & METABOLITES	CUSTOMIZABLE TESTING
• High diagnostic yield in single test • Fastest rapid turnaround – as soon as 5 days • Reanalysis & treatment guidance	• 100k+ microarrays performed & analyzed • Exon coverage of 5000+ genes • Option to add complementary tests	• PreSeek™ - non-invasive prenatal sequencing screen • GeneAware™ carrier screen for family planning	• Diagnostics & treatment guidance • Hereditary Cancer with RNA sequencing reflex option • CMA exon coverage • Cytogenetics & FISH	• GlobalMAPS™: Unique test diagnosing broad range of inborn metabolic disorders in single test • Tay-Sachs Enzyme • Clinical trial support	• Single & custom genes • Disease-specific and custom NGS panels with WGS reflex option • Nuclear & Mitochondrial • RNA sequencing

Advantages

Multidisciplinary assessment, industry-leading rapid turnaround time, flexible sample types, personalized treatment guidance, clinical support

// STATE-OF-THE-ART TESTING LAB

AUTOMATED WORKFLOWS

- Robotics, predictive analytics, AI and machine learning
- 300,000 samples/ yr

MULTI-OMICS PLATFORM

- Flexible, custom solutions and assays
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ADVANCED TECHNOLOGY

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CERTIFIED & ACCREDITED

Florida HEALTH

Maryland Department Of Health

California Department of PublicHealth

Clinical Laboratory Improvements Amedments

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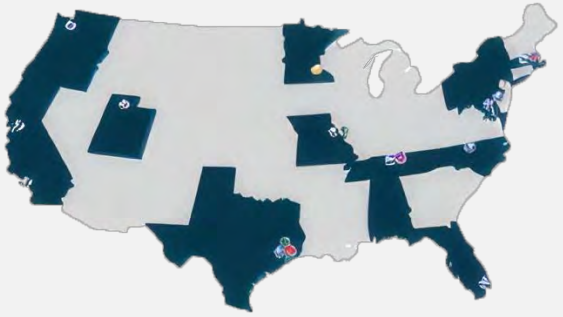
NEW YORK STATE Department of Health

PA Department of Health

// RESULTS BACKED BY DEEP EXPERTISE

Baylor Genetics is the sole sequencing core partner for the Undiagnosed Diseases Network (UDN), funded by National Institutes of Health



2,220	2,199	676
participants evaluated or ~1 every other day	participants with genome and/or exome sequencing	30% of participants diagnosed

- UDN leverages Baylor Genetics expertise with Whole Genome and Exome Sequencing, and unique capabilities to deliver answers for patients with ultra-rare diseases
- Providing data-driven information and insights to improve health outcomes

UDN Undiagnosed Diseases Network

COLLABORATING ON COMPLEX CASES

- 10-year partnership
- 12 clinical sites at top U.S. children's hospitals and medical centers
- Working with clinical and research experts to solve the most challenging cases

Facts and figures were last updated by the UDN on July 7, 2023

// A TRUSTED PARTNER WITH PROVEN EXPERTISE

Genetic Expertise

Delivering scientific excellence with reliability

- Rapid WGS and Rapid WES to help you get answers fast and inform patients' care plans
- Expert scientists and genetic counselors carefully curate each test
- In-house genetic counselors available to assist with result interpretation and reporting

Ease of Use

Easier, more accessible genetic testing

- Test ordering and reporting options: Portal, EMR, Paper
- Customer service support at every step of the ordering process
- Flexible billing, pricing and payment programs

Collaboration

Partnering with you to improve care

- Case conferences with lab directors and genetic experts
- Grand rounds presentation on cases and testing capabilities
- Educational support

// OPPORTUNITIES

NOW & NEXT

- Whole Genome Sequencing
  - NICU & PICU - Rapid Diagnostics
  - Pediatrics – Streamlining the Diagnostic Odyssey
- Partner Lab Services
  - OEM Partnerships

- Whole Genome Sequencing 2.0
  - Population Genetics
  - Newborn Sequencing
- Collaborating to Transform Healthcare
  - Personalized & Preventative Medicine
  - Pharma, Life Sciences partnerships