

Your one answer

Diagnosis to Treatment for Rare Disease Patients

3billion

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Global Innovator in Rare Disease Diagnosis

Founded in

2016

Countries

70+

Physicians

2100+

Cumulative Examination Patients

90,000+

Institutions

790+

Diagnostic Rate

30%

Mission

Diagnosis to Treatment for Rare Disease Patients

3billion entered the genetic testing market in 2016 to provide answers for patients with rare disease.

We are committed to helping patients and their families on their journey, starting with genetic testing and diagnosis.

We strive towards a world where rare disease patients are not neglected in diagnosis and treatment.



Company Timeline

Continuous growth in the last 10 years

2016

Oct. Founded 3billion

2017

Mar. Launched the beta version of Direct-to-Consumer (DTC) rare disease diagnostic service

2018

Apr. Participated in national project (NIPA) to establish an AI-driven diagnostic system for pediatric rare diseases

Jun. Raised Series A funding

2019

Feb. Launched <3B-EXOME>, a WES-based rare disease diagnostic test

Oct. Raised Series A funding

2020

Feb. Established facilities for next-generation sequencing analysis

2021

Mar. Raised Series C funding

Apr. Participated in the national Bio Big Data project

Dec. Obtained CAP certification

2022

Apr. Raised Pre-IPO funding

Jun. Launched <3B-GENOME>, a WGS-based rare disease diagnostic test

Dec. Obtained CLIA certification

2023

Apr. Obtained CDPH Laboratory License

Dec. Data-Based Genetic Testing <3B-INTERPRETER> Launched

2024

Jul. Participation in non-metropolitan genetic diagnosis support project (KR-RDSP)

Nov. Listed on KOSDAQ

2025

Mar. Participation in the KR-RDSP (3 consecutive years)

Apr. Launch of GEBRA™ (Genetic Variation Interpretation Software)

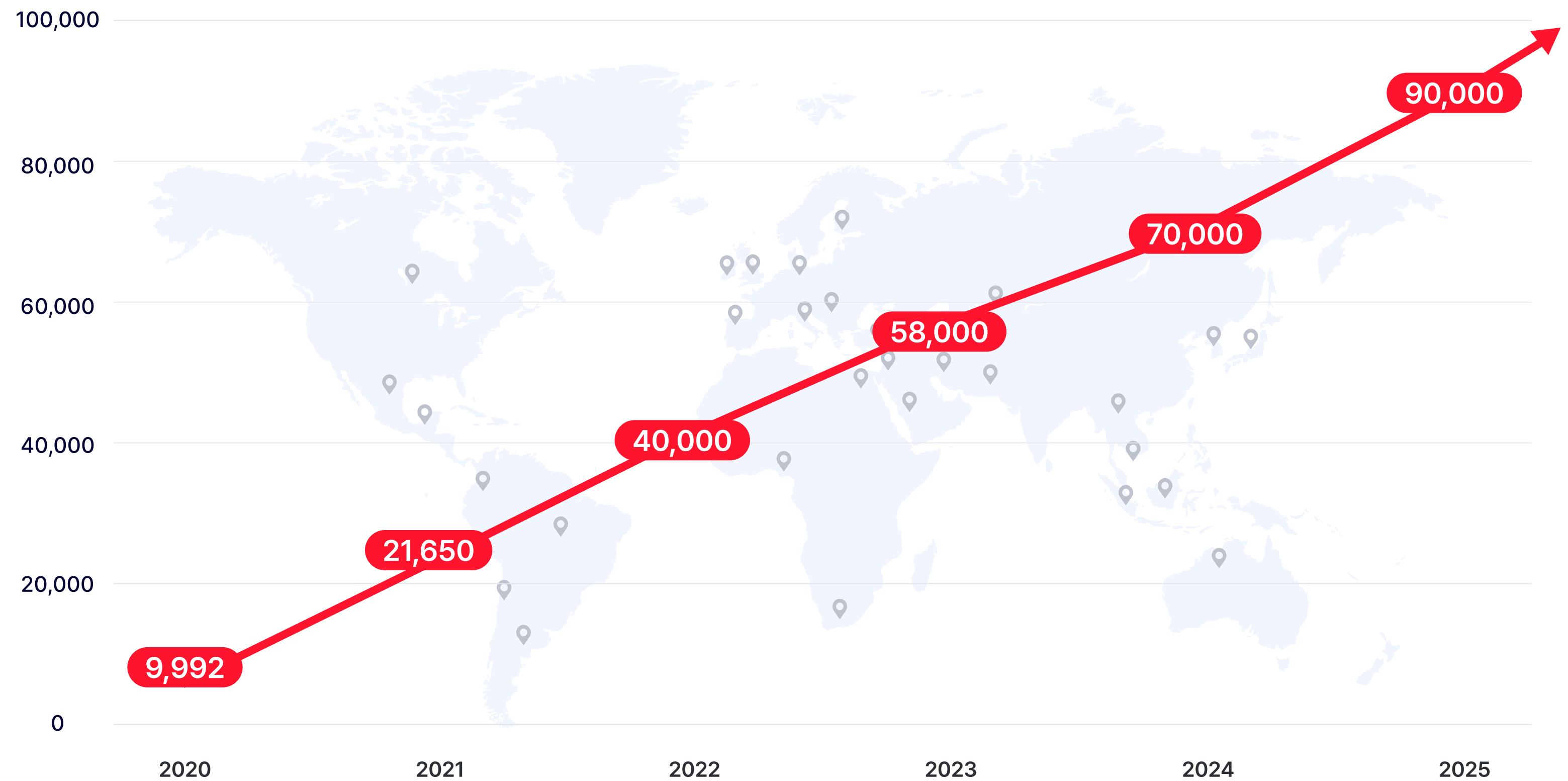
Jun. Participation in NICU Rapid Diagnosis Project

Oct. Establishment of a U.S. Corporation

Rapid Growth of Genomic Database

Since 2020, we have accumulated over 90,000 genomic data entries

Cumulative number of data



National Project

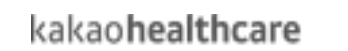
Contributing to the public by participating in national projects



Integrating medical data from 8 major disease groups to develop intelligent software.

- Development of web-based variant diagnostic S/W for patients with hereditary hearing loss and developmental delay
- Selected as Top 12 out of 70,000 national projects in 2020

AI for Children



Developing an AI solution for diagnosing, treating, and managing pediatric rare diseases.

- Selected as the developer for AI S/W solution for pediatric rare disease patients
- Currently in the development and certification process for diagnostic S/W

국가통합 바이오 빅데이터 구축 사업 The National Project of Bio Big Data



Establishing a National Genomic Database to predict and diagnose population-specific diseases

- Analysis of 10,000 patients' genomic data (WGS) to produce diagnostic reference reports

Korean Regional Rare Disease Diagnostic

비수도권진단사업(KR-RDSP)



The Korea Centers for Disease Control and Prevention's project to enhance rare disease prognosis through early diagnosis and timely treatment in non-metropolitan areas

- Conduct full-genome tests for suspected rare disease patients in non-metropolitan areas to aid early diagnosis.

Rapid WGS 분석을 통한 급성 중증신생아 희귀질환 진단지원



A project delivering acute neonatal diagnostic results within 7 days.

- Facilitating early diagnosis of newborns with rapid whole genome sequencing tests.

서울대학교병원 유전체 기반

신생아 선별검사 시범연구사업



A newborn screening project focused on early detection of severe congenital diseases.

- Offering diagnostic software for newborn screening.

Research Achievements

Advancing knowledge of rare disease through continuous research

Publications

138+



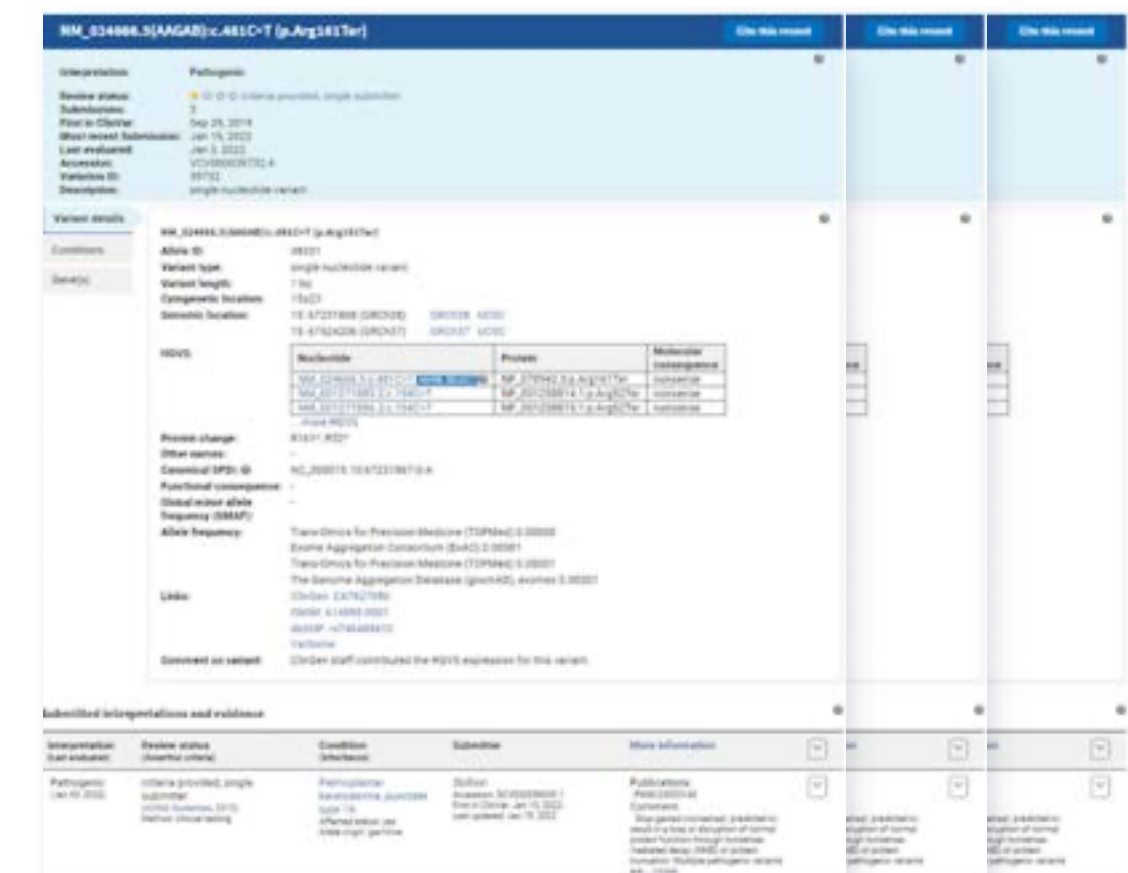
Patents for Filing

38+



Variants Registered

13,715+



Awards and Recognition

Establishing diagnostic capabilities through global competitions

2017

Nov.
Selected as finalist for Fx2017 Startup Award

Jul.
Selected as finalist for Roche's Future X Healthcare 2017 Startup Award
Won the Korean representative selection for the 1776 Challenge Cup global startup competition

Jan.
Won first place at IPMC Precision Medicine Startup Competition

2020

Sep.
Won the Next Unicorn award at ASEAN-Korea Scale Up Competition



2021

Dec.
Selected as tech innovator by Novartis' 2nd Health X-Challenge Seoul



2022

Nov.
Selected as Korean Society of Medical Genetics and Genomics Autumn Conference (Individual) Best Research Award: Excellent Poster Award

Oct.
ASHG Poster selected for Reviewers' Choice

Aug.
Selected as a Top Tech Company of 2022 by Global Data Analysis Company Tracxn (2 consecutive years)

May.
Won in CAGI6, a global AI genomics analysis competition

2024

Nov.
Korea Wins 'Excellent Award' for Venture-Startup Patent



2025

Nov.
Best Oral Presentation Award, 2025 Annual Conference of the Korean Society of Medical Genetics and Genomics (KSMG)

Dec.
Won in CAGI6, a global AI genomics analysis competition

Dec.
\$3 Million Export Tower Award (awarded on the 62nd Trade Day, 2025)



Global Partnerships

Working with over 790+ institutions in over 70+ countries worldwide

SNUH
SEOUL NATIONAL UNIVERSITY
HOSPITAL



CHA UNIVERSITY
BUNDANG MEDICAL CENTER



한양대학교병원
HANYANG UNIVERSITY SEOUL HOSPITAL

SAMSUNG 삼성창원병원

JNUH

제주대학교병원



RIEM
RUMAH SAKIT
HABOGA UNIVERSITY



Instituto de Oftalmologia
"Fundación Conde de Valenciana IAP"

Clinic for
Special Children



UNIVERSIDADE FEDERAL DE SÃO PAULO
1933



National and Kapodistrian
University of Athens
Medical School
Department of Medical Genetics

SC
Loh Guan Lye
SPECIALISTS CENTRE



SINGAPORE
EYE
RESEARCH
INSTITUTE



ICB
UNIVERSIDADE
FEDERAL DE GOIÁS



جامعة بيروت العربية
BEIRUT ARAB UNIVERSITY

UNIVERSITY
OF MALAYA

Business Area

We collaborate throughout the entire journey, from the diagnosis of rare diseases to the development of drugs.

3billion provides NGS-based diagnostic services and provides custom diagnostics to pharmaceutical companies to increase patients' access to treatment.

3billion also develops and provides an AI platform for the development of new rare disease therapies.

Diagnostic
Testing Services



Genetic Testing
Support Programs
with Pharma



AI-Driven
Drug Discovery



Diagnostic Testing Services

Identify the causative variants of a patient's symptoms with 3billion, using next generation sequencing (NGS)

3billion continues to improve the accuracy of diagnosis by leveraging its diagnostic and AI technology.

3billion also provides automated reanalysis at no additional costs to reflect the latest research.



Services

Various coverage options, all for rare disease diagnoses

3B-GENOME

Diagnosis based on **Whole genome sequencing**

Search for disease-causing variants in the entire human genome

3B-EXOME

Diagnosis based on **Whole exome sequencing**

Identify disease-causing variants in exon regions of over 20,000 genes and adjacent regions

3B-VARIANT

Diagnosis based on **Sanger sequencing**

Confirm specific variants found in 3B-EXOME / 3B-GENOME testing and for family testing

3B-INTERPRETER

Diagnosis based on **FASTQ, VCF Data**

Genomic data analysis and interpretation service

Automatic Reanalysis

One Test. Continuous Reanalysis.

New research and diagnostic advances can unlock answers.
With 3billion, automatic reanalysis is included—no additional cost.

Weekly Automatic Reanalysis*

Runs continuously without manual request.
Covers negative and inconclusive results.

No Additional Cost

Fully included your 3B-EXOME service—no hidden fees or extra charges.

Latest DB & AI Integration

Leverages growing disease & variant databases and continuously improving interpretation algorithms.

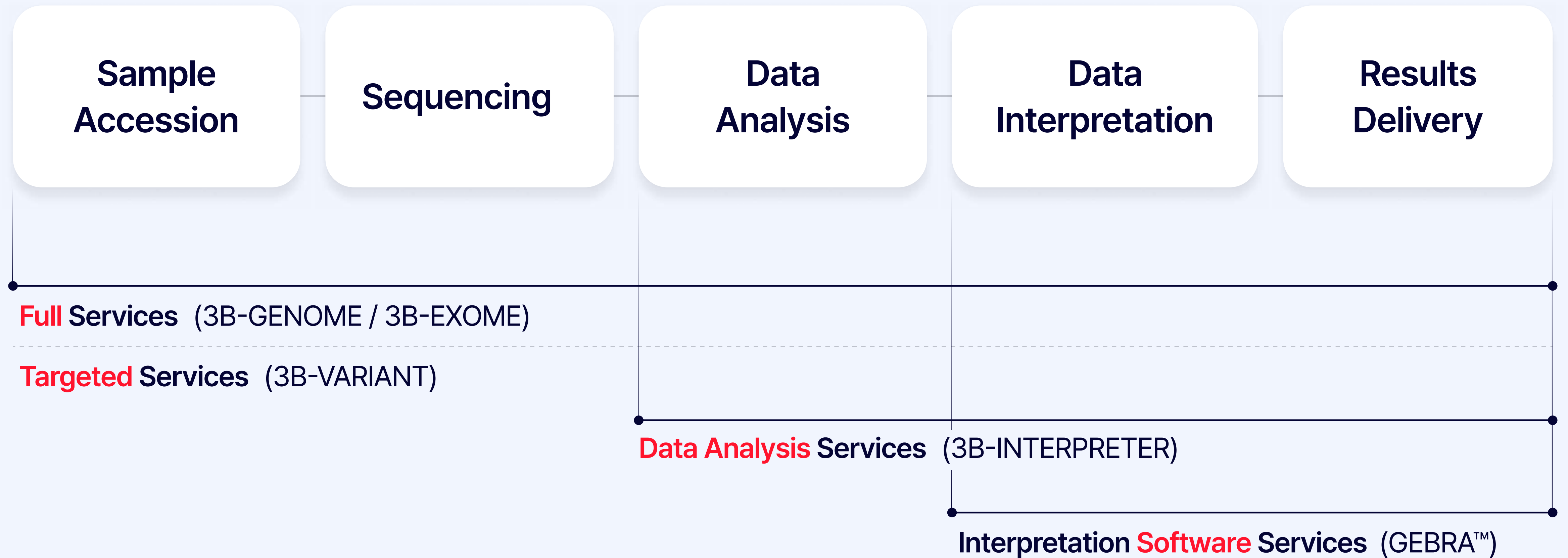
Notification on New Findings

Receive alerts when reanalysis identifies clinically significant results.

* Available only for cases with reanalysis consent provided during 3billion portal ordering.

A Wide Range of Services

End-to-end services for rare disease diagnosis



Advanced Diagnostic Technology

Proprietary data analysis technology for diagnosis using AI and big data

EVIDENCE

Examines vast amounts of variant data to prioritize variants of interest

EVIDENCE reduces potential diagnostic biases and the time needed for analysis.

- Daily update of variant database
- Interpretation and classification of 100,000 variants within 1 minute
- Utilization of proprietary genomic database

3Cnet

An AI-based tool for predicting variant pathogenicity

3Cnet predicts the pathogenicity of detected variants by learning from various types of data.

- High sensitivity with a 99.99% accuracy in predicting pathogenicity of variants
- Algorithm minimizes bias through learning from multiple data sets

3ASC

Assists clinical geneticists in diagnosis

Using the information extracted by EVIDENCE, clinical geneticists select final candidates for causative variants associated with symptoms.

- Determines artifacts (data errors due to equipment)
- Includes causative variants within the top 5 results with a 96% success rate

Reliable Laboratory

Internationally certified laboratory infrastructure, protocols in line with global standards



Accreditation by College of American Pathologists
CAP License # 8750906,
AU-ID# 2052626



Certification by Clinical Laboratory Improvement
Amendments
CLIA ID # 99D2274041



MSCB-113
International Information Security Management
System (ISMS) Standard Certification
ISO 27001:2022



Genetic Testing Support Programs with Pharma

**Identify the most relevant rare disease
patient population with 3billion**

Since orphan drugs have a small patient population who have difficulties with diagnosis, it can be challenging to recruit patients.

Find the right patients for the right treatment with 3billion.



Service

Helping you find patients who will benefit most from treatment



Collaboration with Global Pharma

Offering customized genetic testing for certain rare diseases

Support Program for Lysosomal Storage Disorders

3billion is providing access to genetic testing to patients suspected with Lysosomal Storage Disorders in collaboration with a global pharmaceutical company.



Support Program for Inherited Retinal Disorders

3billion is providing a joint genetic testing program for patients with inherited retinal disorder with a global pharmaceutical company.



Support Program for Atypical Cerebral Palsy

3billion is providing access to genetic testing for patients with suspected Atypical Cerebral Palsy in collaboration with a global pharmaceutical company.



Support Program for Dysplasia & Seizure

3billion is providing access to genetic testing for patients with suspected Skeletal Dysplasia and Seizure in collaboration with a global pharmaceutical company.



Partner Benefits

A cooperative structure that benefits each stakeholder group

Pharmaceutical Company

Expand access to treatment



Healthcare Provider

Propose genetic testing to patients at no additional cost



Patient

Receive financial support for genetic testing and quickly identify the cause of disease



AI-Driven Drug Discovery

Support pharma in developing new orphan drugs using MIN-T, an AI-based drug development technology

3billion's drug discovery technology meets various demands of pharmaceutical companies, such as target identification, target validation, hit-to-lead, and experimental validation, aiding in new drug development.

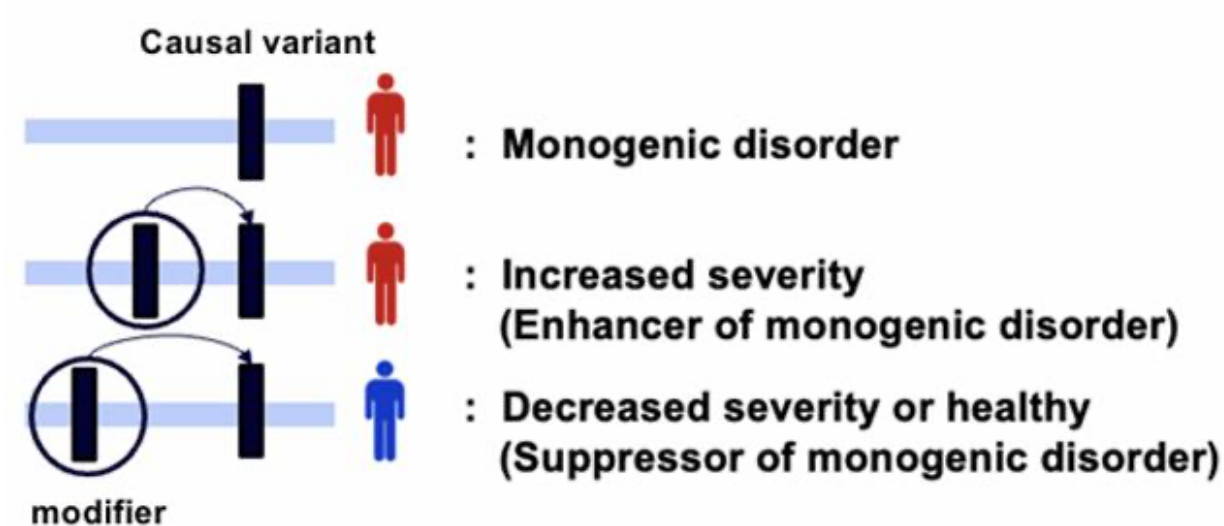


Service

Utilizing patient genomic data to discover novel targets and pockets for small molecules so that we can treat the diseases known to be undruggable target

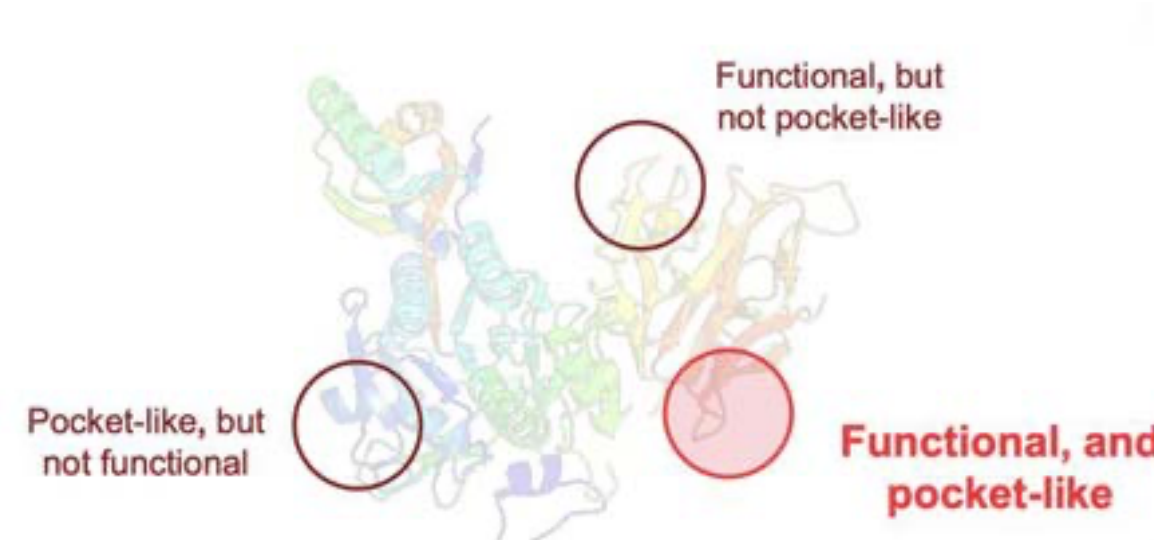
Target Discovery

- Finding modifier gene for the disease using WES/WGS patient data
- Finding unknown GoF mechanism diseases which could be promising targets for SM



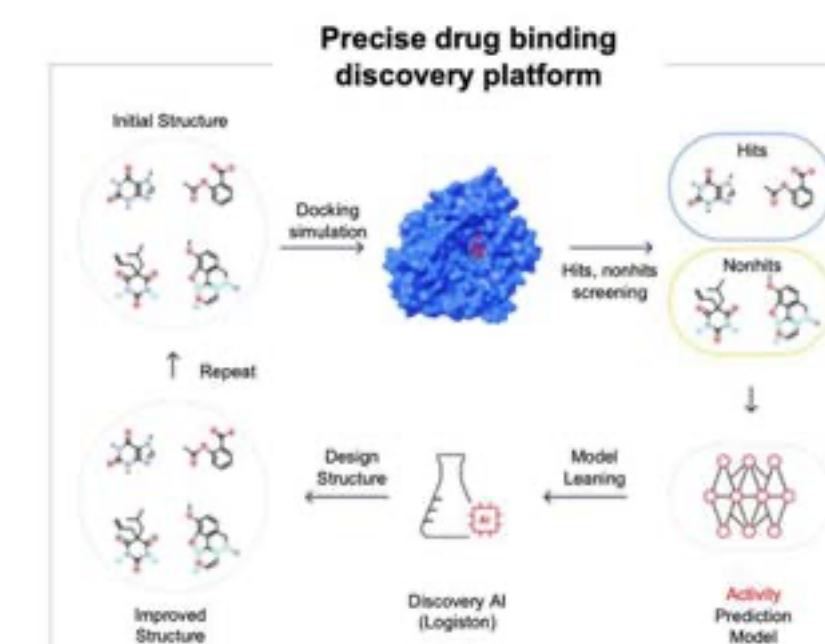
Pocket Discovery

- Find effective pockets even without references based on the variant interpretation
- The active site indicates the site of the protein target which is both functional and pocket-like.



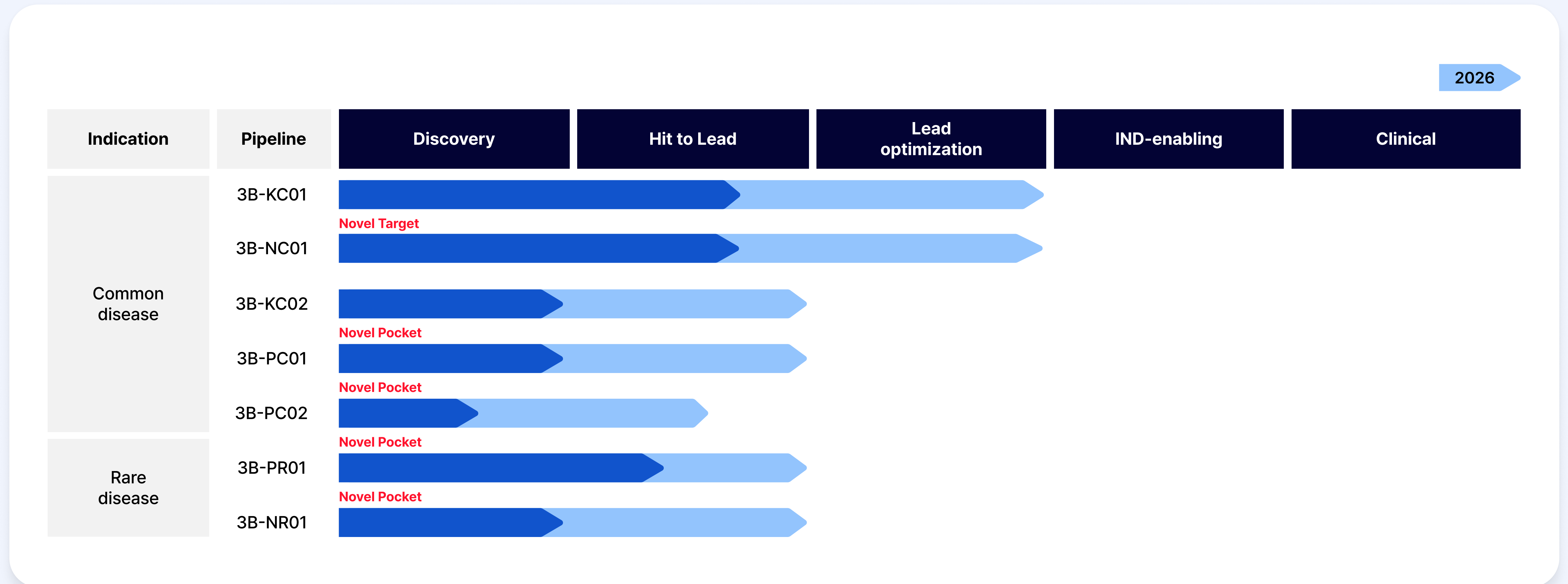
Active Compound Design

- Reaction based novel compound synthesis and active compound design methods
- Structurally novel but synthesizable compounds generated by AI



Drug Development Platform Pipeline

We are utilizing AI to discover leads, currently in the validation stage
In 2026, we aim to expand into lead validation for rare disease drug development



Partner Benefits

A drug discovery structure that benefits all participating groups

Pharmaceutical Company

Significantly reduce time to discovery and costs for drug development



Healthcare Provider

Increase the probability of finding optimal treatment for patients



Patient

Improve chances of accessing treatment more quickly through shorter drug development cycles



We strive to provide end-to-end solution through our Genomic data platform for patients through diagnosis, treatment, prevention

3billion is changing the rare disease diagnostic ecosystem through technology and our passion.

We hope to change the world by applying AI to genomic data to provide the best-in-class diagnostic technology and development of rare disease treatment.

We will create value throughout the patient's entire journey, including diagnosis, treatment, and prevention, with our genomic platform.



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