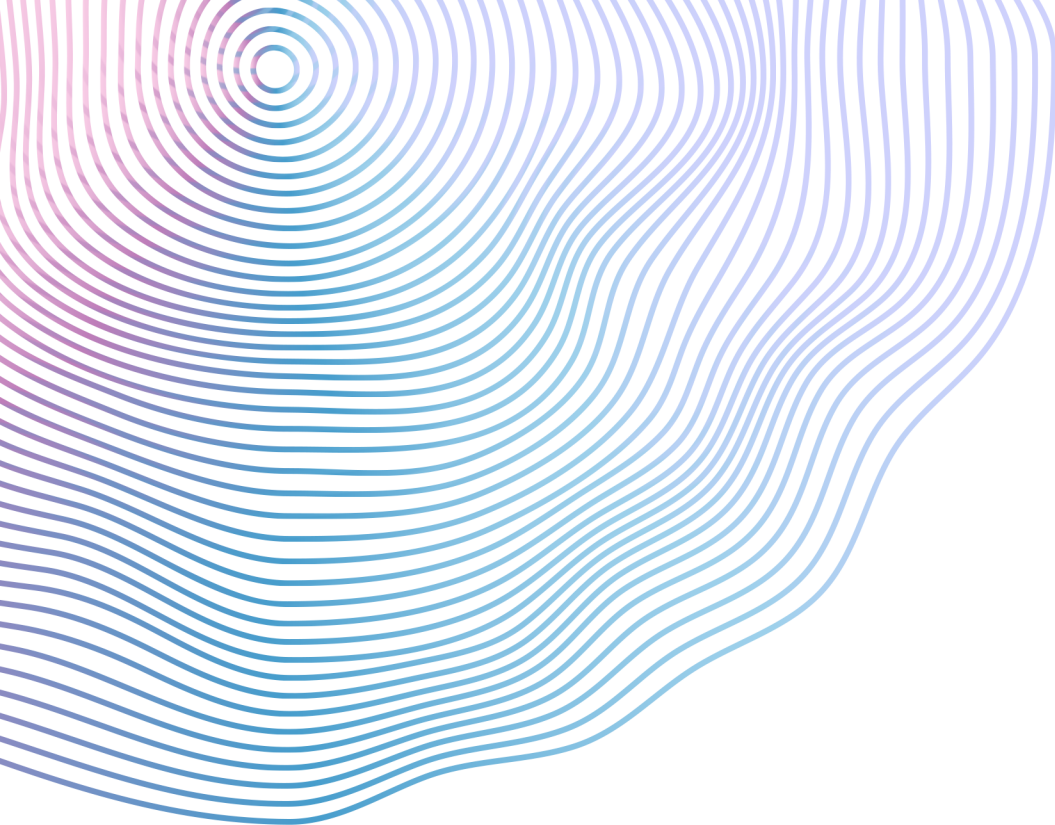




Creating a healthier future for humanity

Humanizing Genomics





anniversary

25th

| | |
|--------------|---|
| COMPANY NAME | Macrogen, Inc. * Macroscopic Phenotype of Gene |
| FOUNDER | Chairman Jeong-Sun Seo (Distinguished Professor, Seoul National University Bundang Hospital) |
| CEO | Su-Kang Lee |
| EMPLOYEES | Approx. 730 employees globally *As of December 2021 |
| REVENUE | USD 94.7 million (KRW 112.6 billion) (sales profit of KRW 7.2 billion; net profit of KRW 87.9 billion) *as of 2020 end-of-year book balancing |
| LOCATIONS | HQ: Macrogen Building, 238 Teheran-ro, Gangnam-gu, Seoul, Republic of Korea Macrogen Genome Center: 254 Beotkkot-ro, Geumcheon-gu, Seoul, Republic of Korea Macrogen GEM Center: 466 Gangseo-ro, Gangseo-gu, Seoul, Republic of Korea Macrogen Daejeon Genome Center: 65 Techno 3-ro, Yuseong-gu, Daejeon, Republic of Korea |

EST 1997

Established on June 5, 1997,
based on its antecedent, the
Genomic Medicine Institute of
the Seoul National University
College of Medicine

1st

The first Korean bio venture
company to be listed on
KOSDAQ in February 2000

Global Network

MACROGEN, INC.
SEOUL, KOREA
DAEJEON, KOREA

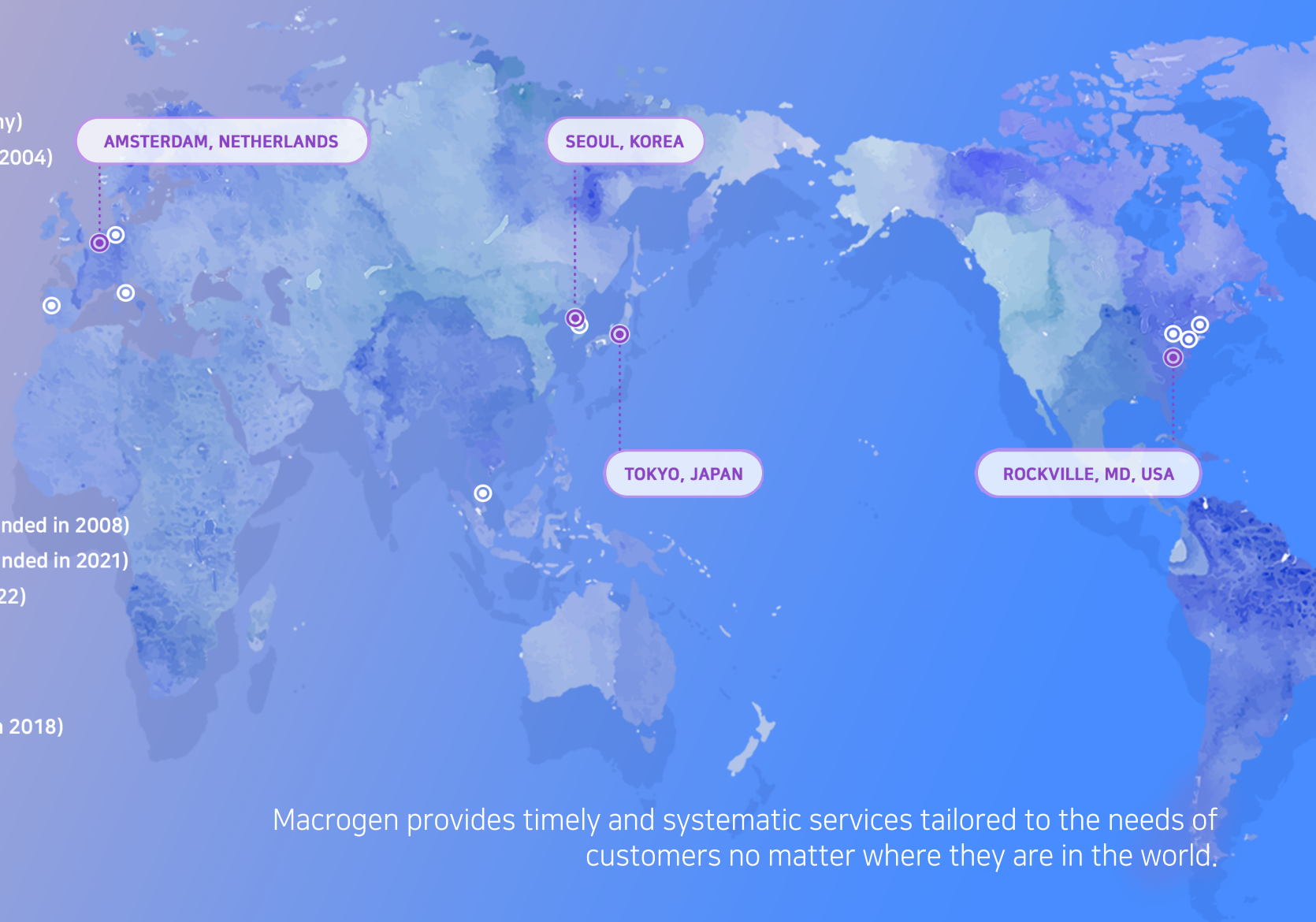
PSOMAGEN, INC. (Affiliate Company)
ROCKVILLE, MD, USA (Founded in 2004)
NEW YORK, MA, USA
BOSTON, MA, USA
STERLING, VA, USA

MACROGEN JAPAN CORP.
TOKYO, JAPAN (Founded in 2007)

MACROGEN EUROPE B.V.
AMSTERDAM, NETHERLANDS (Founded in 2008)
MAASTRICHT, NETHERLANDS (Founded in 2021)
MILAN, ITALY (To be founded in 2022)

MACROGEN SINGAPORE PTE. LTD.
SYNAPSE, SINGAPORE (Founded in 2018)

MACROGEN SPAIN
MADRID, SPAIN (Founded in 2016)



Macrogen provides timely and systematic services tailored to the needs of customers no matter where they are in the world.

Macrogen — Vision



**Big Data
Accumulation**



**Disease
Prediction/
Diagnosis**



**Future-oriented
Medical
Innovation**

**A Global Leader
in Precision Medicine**

Macrogen strives to become a global leader in precision medicine that predicts and diagnoses diseases while suggesting customized treatments for each patient through R&D based on genomic information and collaboration with medical institutions.

SLOGAN

Humanizing Genomics

Macrogen provides personalized medical services tailored to each individual's genetic features by tapping into genomic analysis and data analysis technologies. The spirit of "broadly benefiting all mankind" is our guiding principle.

MISSION

Macrogen seeks to help everyone enjoy a long and healthy life by utilizing genomic data.

Macrogen's mission is to enable humanity to live healthy and happy lives free from the risk of disease.

CORE VALUE

Outstanding Ideas

Discover new values to change the world with outstanding ideas.

Continue to Challenge

Continue to challenge ourselves to create values and services that exceed our customers' expectations.

Top-notch Leader

Grow into a top-notch leader that revolutionizes the future by creatively thinking and continuously challenging ourselves.

Practicing precision medicine

Leveraging genomics, we put precision medicine into practice.

Prediction / Prevention

- Discovering genes that can cause diseases
- Developing diagnostic panels

Treatment

- Prescribing target therapeutic products
- Discovering biomarkers and developing therapeutic products



Monitoring

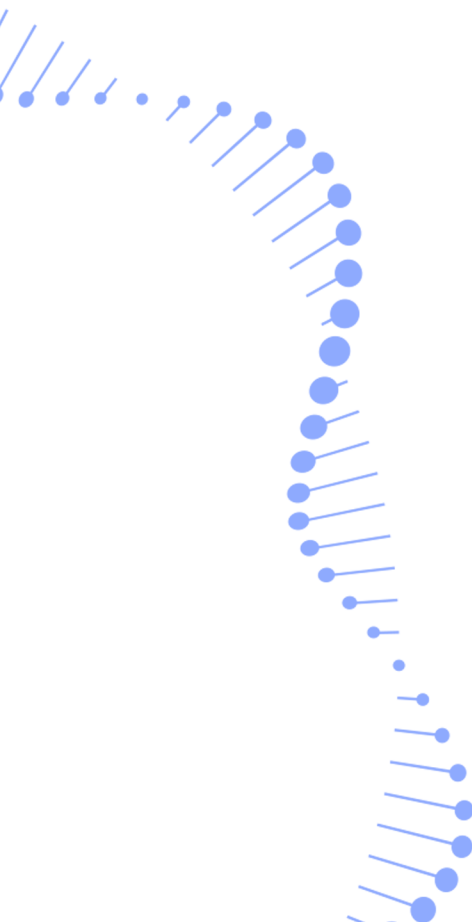
- Monitoring of the recurrence of a disease
- Personalized health solutions according to one's DNA

Diagnosis

- Predicting/preventing diseases using genomic analyses
- Building big data on genomes

Macrogen R&D's Present and Future

Armed with the world-class analysis infrastructure and R&D competitiveness, Macrogen will spearhead future-oriented precision medicine.



**Genomic analysis and
leading research on customized
precision medicine**

**Future-oriented research
to enhance humanity's
health and quality of life**

Precision Medicine Institute

Our Precision Medicine Institute has enhanced partnerships with top-tier medical professionals and scientists around the world, and leveraged the company's cutting-edge genomic analysis technologies and hospital clinical research systems to develop various personalized medical services with the strong commitment to making progress in basic science research.

Bioinformatics Institute

Utilizing its core technology that processes and interprets various species' genomic information, our Bioinformatics Institute conducts joint research with major research institutes based in Korea and overseas.

SyncGenes Institute

The SyncGenes Institute strives to contribute to building a society where anyone can use their genome information to lead a healthy life based on data integration, analysis, and synchronization of results.

the Biome Institute

Intending to enhance the health of all mankind, theBiome Institute spearheads the efforts to develop therapeutic products targeting microbiomes by understanding how microbiomes function and leading the research on microbiomes.

Big Data Institute for Health

The Big Data Institute for Health aims to provide personalized healthcare services to prevent or reduce the risk of developing diseases that are likely to occur through analysis and prediction of the genome.

Certifications acquired by Macrogen

Macrogen has acquired international standards for quality, service certifications, and Korea's top-tier information security certification, seeking to attain global standards.

Quality Management System

ISO9001

Internationally Accredited Testing Laboratory

KOLAS Accreditation (ISO/IEC 1725)

Quality Management System for Clinical Diagnostics

CLIA (Clinical Laboratory Improvement Amendments) Certification

CAP (College of American Pathologists) Accreditation

GMP (Good Manufacturing Practice) Certification

Good Clinical Laboratory Practice Accreditation

Genetic Testing Accuracy Evaluation Certification

NGS Clinical Laboratory Certification

CSP Program

Illumina

Pacific Biosciences

Life Technologies

Thermo Fisher Scientific

Agilent Technology

10x Genomics

Information Security Management System

ISMS-P (Personal Information & Information Security Management System)



ISO/IEC 27001:2013 Certification



ISO27701 (International Standard for Privacy Protection)



*as of December 2021



NO.1

Macrogen's market share
in the research sector in Korea ¹⁾

GLOBAL TOP 5

Macrogen's estimated capacity
for genomic analysis ¹⁾

60%

About 60% of the total revenue
generated in overseas markets ²⁾

18,000

More than 18,000 partners
in 153 countries around the world

30PB ³⁾

Big Data for
Asian Genome Project

148

No. of SCI-level articles
(including 18 articles published in
Nature and its affiliated journals)

- 1) including the research area
- 2) as of 2021; including our
affiliate company Psomagen
- 3) PB: PetaByte

Macrogen, a leading company with a significant influence on the
entire bio market, will continue to take on new challenges.



Research Services

We conduct research in collaboration with leading partners worldwide, tapping into our world-class analysis infrastructure and extensive experiences and know-how.

Accurate and rapid genomic analysis & professional consulting services



NGS

Next Generation Sequencing

We offer a variety of NGS genomic analysis services and bioinformatics results by leveraging our cutting-edge equipment and infrastructure which are the largest in scale in Korea.



CES

Capillary Electrophoresis Sequencing

Equipped with the automation system and 20 years of experience, we provide rapid and accurate CES genomic analyses.



Microarray

We offer genetic testing services for various research purposes such as mRNA, miRNA, SNP, CGH, and DNA methylation.

Genetic recombination and synthesis services tailored to each customer



Oligo Synthesis

Utilizing high-quality ingredients and the optimized automation system, we offer various types of oligo synthesis services. It is a customized service that synthesizes oligos in a sequence the client wants.



GEM

Genetically Engineered Mouse

We produce and supply genetically engineered mice based on CRISPR, the innovative genetic editing technology.

Clinical Diagnosis

Macrogen offers personalized diagnoses and treatments, and clinical solutions to maintain health, spearheading the efforts to put future-oriented precision medicine into practice.



Genomic Testing for Cancer

We predict a person's risk of developing cancer due to genetic factors by analyzing his or her genome, and suggest personalized treatments based on the result of analyzing the mutation of the genes that caused cancer.

- Cancer risk prediction
- Cancer cause analysis
- Cancer development monitoring



Prenatal Testing and Early Screening for Rare Diseases

By offering prenatal testing and early screening for rare diseases for fetuses, we help people lead a healthy life from their birth to death.

- Prenatal screening for chromosomal disorders
- Genetic testing for rare diseases

COVID-19

We propose integrated molecular diagnostic solutions to diagnose infectious diseases by building the on-the-spot diagnosis system marked by high accuracy, mobility, and convenience.



Axen™ COVID-19 RAPID Kit

We propose integrated molecular diagnostic solutions to diagnose infectious diseases by building the on-the-spot diagnosis system marked by high accuracy, mobility, and convenience.

- Axen COVID-19 IgM/IgG RAPID
- Axen COVID-19 Ag RAPID



Smart Mobile Lab

It is a mobile, small-sized laboratory for on-the-spot COVID testing. It is an all-in-one system where all steps, from extracting virus nucleic acids to conducting genetic testing and generating the analysis results, can be done in a single place.

Personal Healthcare

Macrogen's healthcare solutions tailored to the needs of each client propose more practical and effective ways to improve our clients' health.

Personal Genomic Analysis/ Microbiome Analysis & Customized Probiotics Solutions

Through the personal genomic analysis and microbiome analysis based on data, Macrogen offers "personalized healthcare solutions just for you."



We help people understand their own characteristics based on their genetic data and improve their lifestyles throughout their life span for healthier lives.



GenTok is the first genetic testing service to integrate health questionnaires and EMR data from hospitals together. You can check your testing result and regularly get various health information and tips on the "GenTok" mobile app. By analyzing not only disease-associated variants but also pathogenic variants related to the development of a certain disease, GenTok provides testing results with high prediction accuracy.



theBiome knows more about you than yourself. It is a personalized solution that analyzes the microbiome ecosystem in your gut to help you improve your gut health. Using the gut microbiome testing kit, theBiome service analyzes each person's gut to determine the gut type and suggests optimal probiotics that can replenish probiotics and nutrients for each gut type.



MICROBE&ME is our testing product exclusively for the gut microbiome that analyzes beneficial and harmful bacteria in the gut to suggest effective ways to maintain health. Based on the results of 7 tests analyzing key beneficial/harmful bacteria in one's gut, we quantify the gut's immune power and irritabilities to empower people to maintain their gut health through more scientific ways.

Personalized Genomic Analysis

We help people understand their own characteristics based on their genetic data and improve their lifestyles throughout their life span for healthier lives.

Disease Prediction & Wellness Genetic Test

This service not only predicts diseases but also conducts various tests to provide information necessary for maintaining health and making well-balanced lifestyles involving nutrition intake and healthy diets.

My Genomestory Gold/Blue/Green

GenTok

GenTok is the first genetic testing service to integrate health questionnaires and EMR data from hospitals together.

Master Male 23/ Female 25

Disease Prevention & Wellness Genetic Test

It is a DTC (Direct-To-Consumer) genetic testing service that allows clients to check their genetic characteristics or health-related wellness information without visiting a medical institution.

My Genomestory The Plus All-in-One 69 (73 items) /
The Plus Skin&Care 44/ The Plus Fitness 41/
The Plus 12 (13 items)



theBiome

theBiome offers probiotics solutions fit for each person's microbiome status and gut type, suggesting more scientific and effective ways to maintain gut health.

theBiome knows more about you than yourself!

A personalized solution just for "you" that helps making your gut healthier

STEP 1 The gut type is analyzed with the microbiome testing kit.

STEP 2 Customized probiotics solutions fit for each individual's gut type are recommended.



Healthcare for Pets

We offer the genetic testing service to help making pet animals' lives healthier and happier.

myPETGENE

myPETGENE is a genetic testing service for pets. This service can help detect your pet's hereditary diseases in advance, enabling disease prevention through customized care and management such as diet improvement and exercise. The genetic testing can also be utilized to identify each pet animal and prove the blood ties between two or more pet animals.

Disease Diagnosis | DNA Certificate | Proof of Blood Ties | Sex Identification



ESG

We envision a sustainable future for everyone.

Prioritizing customer satisfaction

Providing genomic analyses enabled by the world-class technology

Prioritizing the protection of our customers' rights and personal information and establishing mutually beneficial and sustainable relationships with our suppliers and partner

Earning investors' trust

Cultivating the corporate culture underpinned by compliance, transparency, fairness, trust, and honesty

Making utmost efforts to enhance the shareholder value and communicating with our shareholders

Leading the global bio/healthcare industries

Cultivating a mature ethical culture based on understanding and trust

Respecting colleagues and seeking shared growth of employees and the Company

Improving the health of humanity

Contributing to making 'humans' lives healthier through our continuous technological development and R&D efforts

Strengthening the biotech industry's basic research capabilities by providing R&D support to scientists



Corporate Social Responsibility

We are committed to fulfilling our social responsibility for the future for everyone and sustainable Earth.

Macrogen Scientist Award

Established in 2004, the Macrogen Scientist Award is aimed at encouraging and supporting scientists in Korea who have made outstanding achievements in the biotechnology field. We select the winners among young researchers and experienced researchers in close cooperation with the Deliberation Committee of the Korean Society for Molecular and Cellular Biology.

Macrogen Young Bioinformatician Award

Established in 2019, the Macrogen Young Bioinformatician Award is aimed at recognizing and supporting outstanding scientists early in their careers in the field of bioinformatics in Korea. We select the winners in close cooperation with the Award Committee of the Korean Society for Bioinformatics.

Macrogen Female Scientist Award

Established in 2005, the Macrogen Female Scientist Award discovers female scientists with outstanding talent and capabilities, and provides support to the selected winners. Macrogen selects the winners in close cooperation with the Korean Society for Biochemistry and Molecular Biology.

Pro Bono Work

Macrogen provides genetic analyses for the underprivileged by utilizing our genomic analysis technology and is committed to fulfilling our social responsibility to contribute to ensuring the sustainability of Earth.

