The Global Leader in Multiplex Molecular Diagnostics

Company Overview
About Seegene

Seegene tirelessly pursues innovation and takes on new challenges to build a better future for humanity.

With the development of proprietary high multiplex real-time PCR technologies, Seegene has produced and delivered molecular diagnostics (MDx) products capable of detecting multiple targets simultaneously. Seegene’s products identify and provide a wide range of clinical information integral to diagnosis and care, enabling healthcare professionals to select the best treatment in the early stages of disease.

Also, by opening a new paradigm of diagnostics in medicine/healthcare, Seegene is playing a vital role in safeguarding humanity from diseases and allowing individuals to lead a healthy life.

Seegene’s High Multiplex Real-time PCR Technologies

- Simultaneous detection of multiple pathogens
- Early diagnosis of multiple infections caused by more than one causal pathogen
- Allowing appropriate treatment to be applied to each causal pathogen
- Confirm certainty of infection as well as measure severity based on quantitative information of infection, supporting healthcare providers in tracking/responding to patient’s condition.

- Precise diagnosis
- Eliminate need of additional on-site reactions or additional laboratory procedures in hospitals to support prompt diagnosis.

- Timely diagnosis
- Early detection of multiple possible pathogens in a single test, allowing appropriate treatment regimens in the early stage.

- Affordable diagnosis
- Cost-effective tests not only improve patient outcomes but also relieve financial burden of healthcare systems.
Our Mission

Seegene presents a new roadmap for standardization of molecular diagnostics and brings a healthier, better future.

Based on its efforts over the years - high multiplex real-time PCR technology, extensive expertise in product development, and assay development automation software - Seegene aims to build a system that enables any patients to have access to MDx services at hospitals of any size at reasonable costs.

Molecular diagnostics (MDx) is the latest in vitro diagnostics that detects causes of disease by analyzing nucleic acids such as DNA and RNA which contain genetic information. Powered by high accuracy and rapid result delivery, this diagnostics is suitable for early diagnosis and holds a strong potential for personalized care.

What is molecular diagnostics (MDx)?

With high sensitivity and accuracy, molecular diagnostics is used to detect infectious/genetic diseases, and in recent years, it has been widely used to detect MERS, H1N1, and avian influenza infections.

MDx for More Patients and Clinicians

Our Mission

Seegene aims to bring a healthy life for everyone by creating a new diagnostics paradigm

We can accomplish our mission with Seegene technologies

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What is molecular diagnostics (MDx)?
Our Business

As an active and reliable development partner, Seegene is expanding the reach of MDx technology not only in diagnostics of human disease but also in diagnostics of diseases in plants, animals, and in contamination/infection of livestock, agricultural products, and seafood. Seegene is venturing into new areas that include food safety testing and companion diagnostics through technology transfer contracts.

MDx assays*

Viral & Microbial infections
- Respiratory infections
- Gastrointestinal tract infections
- Tumors
- Infections
- Saliva

Women's healthcare
- Vaginosis

Drug resistance
- Vancomycin-resistant enterococci
- Clarithromycin-resistant H. pylori
- Multidrug-resistant tuberculosis (MDR)
- Extensively drug-resistant tuberculosis (XDR)
- Carابamys-resistant tuberculosis (CRB)
- Extended-spectrum beta-lactamases (ESBLs)

Oncology & SNP
- BRAF V600E
- Thrombosis
- ApoE
- Leukemia (e.g. BCR-ABL)

Oligo and RUO reagents
- For basic research in life science, medical science, and healthcare supplies (diagnosis in animals and plants)
- Inspection of food, food hygiene, agricultural products, and seafood
- DNA inspection and confirmation of livestock bloodline

Collaborative development
- Development of products to be applied on various diagnostic instruments
- Customized multiplex MDx products

Development and licensing of new technologies
- IVD/ROU assay manufacturing technologies
- Licensing of food safety testing, companion diagnostics, etc.
- Development of oligo design program (in silico system)

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Seegene's high multiplex assays deliver comprehensive, clinical information in a single test and allow accurate and rapid diagnosis of various infections and diseases.

**Respiratory infection**
- Gastrointestinal tract infection
- Sexually transmitted infection
- Bacterial vaginosis
- Human papillomavirus
- Mycobacterium tuberculosis
- Non-tuberculosis mycobacteria
- Thrombosis
- Meningitis
- Leukemia
- MDR-TB/XDR-TB
- Entero-DR
- Vaginosis Screening
- Vancomycin-resistant enterococci
- Clarithromycin-resistant H. pylori
- Lyme&Tick-borne*

**Gene expression**
- APOE*
- CYP2C19*
- EGFR*
- KRAS*
- BRAF*
- HBV Lami-R*
- HBV Ente-R*
- Aerobic Vaginitis*
- Dermatophyte*
- Transplantation*
- Bacterial DR 6 panels*
- MTB/MAC*
- NTM typing*
- Tropical Fever*
- RP typing*
- Blood infection*

Seegene's production system is certified by ISO9001 and ISO13485 and effectively supports product quality and manufacturing consistency. Seegene maintains the quality control of products and registers products in compliance to appropriate quality system requirements and country-specific regulations such as CE-IVD, Health Canada and Korean MFDS.

**High Multiplex MDx Products**

Seegene's All-in-One Platform is a unique reagentless automation solution and comprehensive MDx testing system that covers infectious diseases, women's health, personalized medicine and etc. The platform allows MDx to be widely used for fact-based decision making within clinically meaningful timeframes.

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**Product timeline**

<table>
<thead>
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<th>Year</th>
<th>Product</th>
<th>Description</th>
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| 2000 | -2005  | Seegene’s high multiplex assays deliver comprehensive, clinical information in a single test and allow accurate and rapid diagnosis of various infections and diseases.
| 2009 | -2014  | With diversified MDx built on end-to-end digitalized development processes, Seegene aims to deliver high-quality healthcare products and service.
| 2014 | -2018  | Seegene's multiplex assay can reduce the number of singleplex tests. Various assays can be performed in one platform system with no need to purchase additional instruments.

**Cost-effective system**
- Less labor and space, but high productivity
- Minimal labor required by running multiple assays simultaneously on Seegene’s All-in-One Platform
- Minimal hands-on time & no manual pipetting
- Compact-sized instruments requiring less lab space

**All MDx Assays in One Platform**

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**Seegene’s product pipeline**

- Seegene Viewer
- CFX96™
- Automated nucleic acid extraction and PCR setup
- STARlet IVD or NIMBUS IVD
- Automated data analysis
- Interlocked with LIS
- Instrument

**Digitalized Development System**

With diversified MDx built on end-to-end digitalized development processes, Seegene aims to deliver high-quality healthcare products and service.

**Hospital**

Seegene’s All-in-One Platform is capable of detecting hundreds of diseases on a single platform.
Healthier life for all humanity

Doing Less for More
Seegene’s technology leads to effective treatment.

For physicians and clinics
- Timely care in early stages of illness thanks to detection of multiple pathogens in a single test
- Support in selecting the best care for each causal pathogen

For technicians and clinical labs
- Increased efficiency thanks to ability to test multiple pathogens in a single test
- Early and prompt treatment for critically ill patients by preventing delays in diagnosis

For patients
- Reliable treatment based on the most accurate prescription for each causal pathogen
- Effective illness prevention and medical cost savings thanks to accurate early diagnosis

For basic life science researchers
- Development of novel medications ideally suited to patients’ needs
- Diverse applications in the development of products for diagnostic and research purposes

For governments
- Rapid diagnoses of infectious diseases newly/epidemically spreading and reinforced national preventive measures
- Improvement of healthcare management with limited resources

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For patients
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For governments

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Seegene’s technology leads to effective treatment.
Company History

2000
- Established in Seoul, Republic of Korea

2001
- Developed ACP® technology
- Selected as a KIBO A+ Members Company (Korea Technology Finance Corporation)
- Selected as one of the world’s top 30 companies

2005
- Developed DPO™ technology

2007
- Obtained ISO 13485: 2003 certification (Europe, E.U.)

2008
- Awarded the Medicine Innovation Award (Frost & Sullivan)
- Obtained ISO 13485, CMDCA5 certification (Canada, BSI)

2009
- Selected as official ‘World class product of KOREA’
- Selected as one of the world’s top 30 companies manufacturing MDx products for infections (Research and Medicine)
- Approved for HT Certification by the Ministry of Health and Welfare of Korea

2010
- Listed on the KOSDAQ stock exchange
- Awarded the President’s prize for Technology Innovation (SMBA)
- Established a branch office in Germany

2011
- Developed TOCE™ technology
- Awarded the Frost & Sullivan Technology Innovation prize
- Obtained KGMP certification (MFDS)
- Awarded the Executive of the Year as a Gold Stevie winner (The International Business Awards)

2012
- Developed NuDT™ technology
- Established subsidiary in UAE
- Established a subsidiary in Canada
- Established a subsidiary in Italy

2013
- Selected as official ‘World-class product of KOREA’
- Developed MuDT™ technology
- Established a subsidiary in USA
- Established a subsidiary in Canada

2014
- Awarded the 2015 South Korea In-Vitro Diagnostics Company of the Year (Frost & Sullivan)
- Established a subsidiary in USA
- Launched SG Oligo designing system

2015
- Awarded the President’s prize for Technology Innovation (SMBA)
- Established a branch office in Germany
- Awarded the 2015 South Korea In-Vitro Diagnostics Company of the Year (Frost & Sullivan)
- Established a subsidiary in USA

2016
- Established Biodist-Seegene Diagnostics in Mexico, a joint venture with Biodist Group
- Established a subsidiary in Canada
- Established a subsidiary in UAE
- Established a branch office in Germany
Seegene has established global sales networks covering more than 40 countries around the world, and 6 overseas subsidiaries in North and South America, Europe and the Middle East that drive and support Seegene’s global business operation. Seegene strives to satisfy customers in all these regions by listening and responding to their needs and further expanding its global reach with growing sales network and talents.

**Global Reach with Growing Sales Network and Talents**

Seegene’s global sales network covers more than 60 countries around the world, and 6 overseas subsidiaries in North and South America, Europe and the Middle East that drive and support Seegene’s global business operation. Seegene strives to satisfy customers in all these regions by listening and responding to their needs and further expanding its global reach with growing sales network and talents.

**Headquarters**

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**Subsidiaries**

- Arrow Diagnostics S.r.l. (Italy)
- Arrow Diagnostics MIDDLE EAST
- Seegene TECHNOLOGIES Inc. (U.S.A)
- Seegene CANADA Inc.
- Seegene Germany GmbH
- Amplibio Seegene Diagnostics (Mexico)
- Neo Probe (Republic of Korea)
- Seegene Inc.
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