



SHINKA 2019

課題提起型デジタルカンパニーへ向けて



KONICA MINOLTA

Konica Minolta to Acquire Ambry Genetics (US)

Full-fledged Entry into Precision Medicine

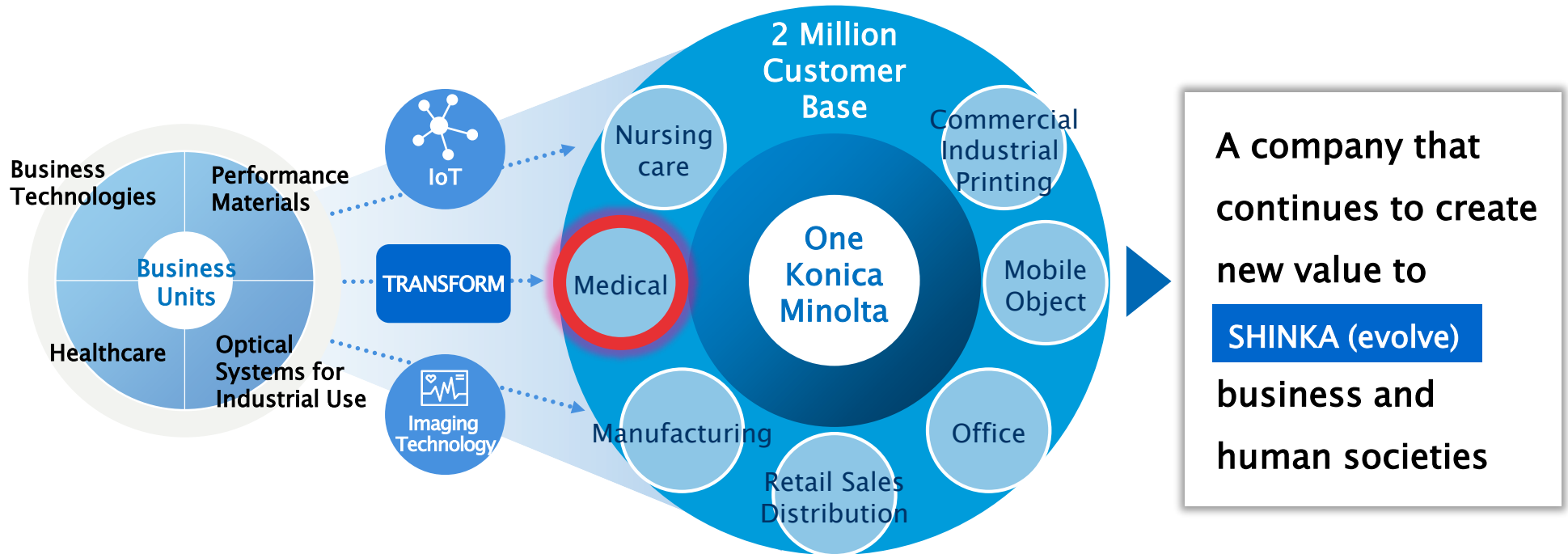
KONICA MINOLTA, INC.

July 6, 2017

- 1. Transaction Details and Positioning in KM's Strategy**
2. Full-fledged Entry into Precision Medicine
3. About Ambry Genetics
4. Strategic Significance
5. Global Expansion
6. Transaction Structure and Schedule

Transformation of KONICA MINOLTA

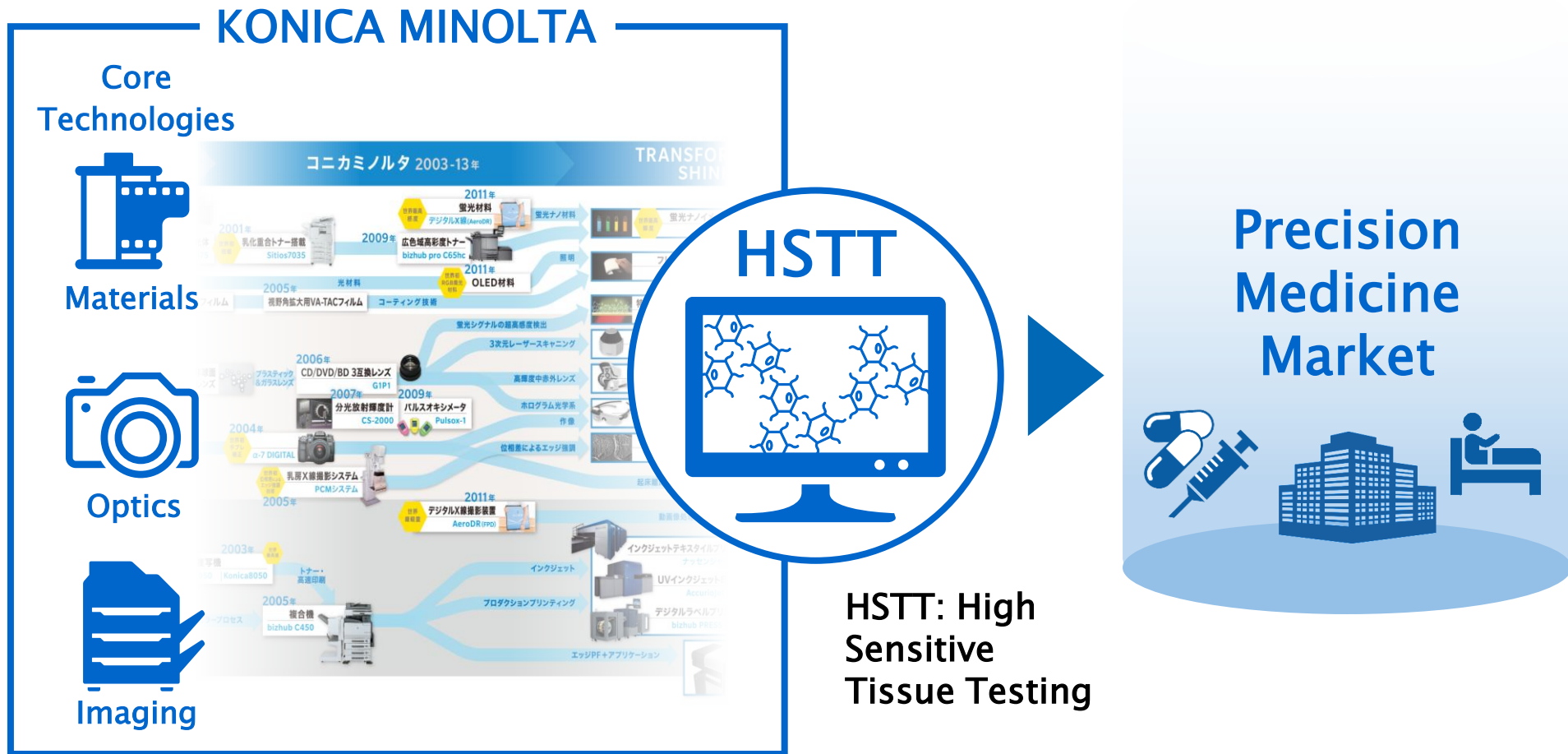
Vision : Digital Company with Insights into Implicit Challenges



- Business System by Product / Customer

- The entire company works together to support the transformation of client companies by sector and industry.
- Predicts potential issues for client companies and create solutions together.

Entering into Precision Medicine on the back of Evolution of Core Technologies



Target Company

Ambry Genetics Corporation

HQ : California, USA founded in 1997 (Private)
Acquisition Price : USD 800M (100% share acquisition)
USD 200M (Performance-linked earn-out)
Investment Ratio : KM (USA) 60%
INCJ 40%

Strategic Significance

- Full-fledged entry into precision medicine
- Combining the world's most advanced genetic diagnostic technology and KM's protein technology
- Establishing highly profitable business in healthcare
- Business model targets both patients and pharmaceutical companies
- Global expansion including Japan

Collaborating with INCJ in Japan

Regulators

- Approval for services to be included national medical insurance
- Streamline guidelines to establish Japanese genome data base

Medical Research Institutions

- Collect test samples for clinical treatment, not for research
- Improve awareness by presenting at academic conferences
- Develop new genetic testing technology

Hospitals

- Advance knowledge on genetic testing
- Establish counseling structure for patients

Operators

- Secure capacity that can accommodate certain number of tests
- Reports on test results for Japanese
- Structure of supporting doctors on site

Support from INCJ

Strengthening communications with relevant ministries and agencies to promote national genome strategy

Promote activities such as establishment of genetic bank that includes medical and research institutions

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Our Goal

(What problems are we trying to solve?)

Enhance Clinical Value

Contain Healthcare Costs

Improve QOL

Our Approach

(Who are we?)

Primary Care

Precision Medicine

Diagnostics

Our Strengths

(Why us?)

Optical
Technology

Image
Processing

Advanced
Materials

Nano
Fabrication

IT

What is Precision Medicine?

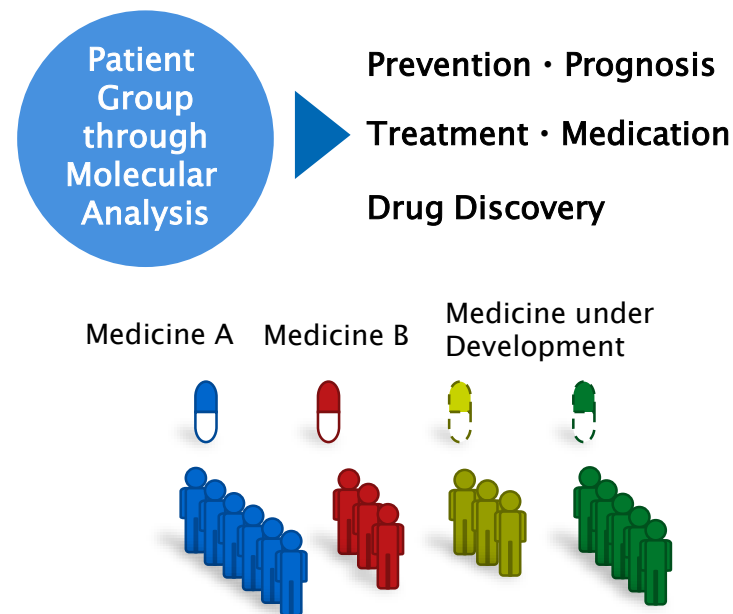
Standardized Medicine

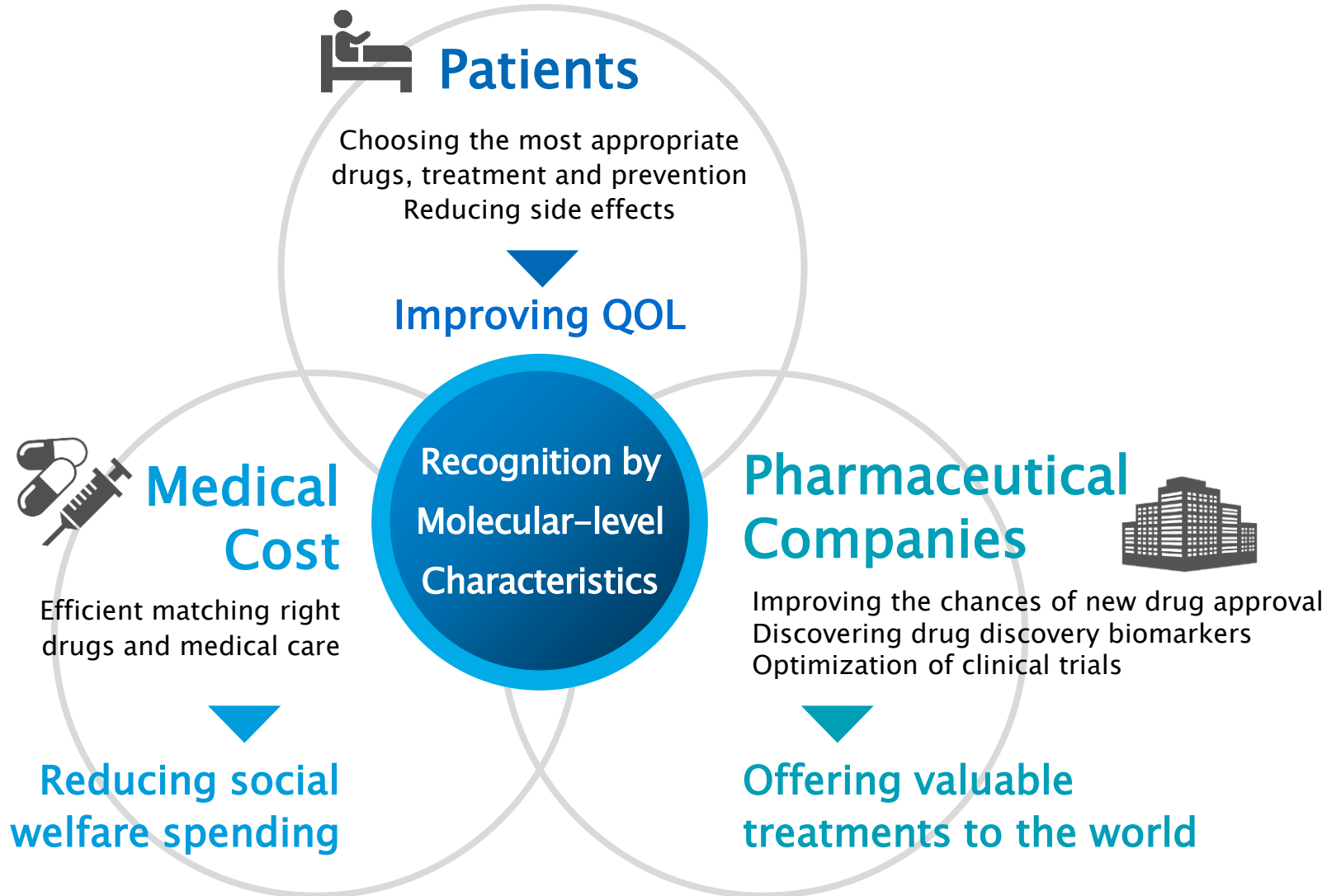


Recognizing gene mutation and protein expression on molecular level

Grouping patients based on their characteristics

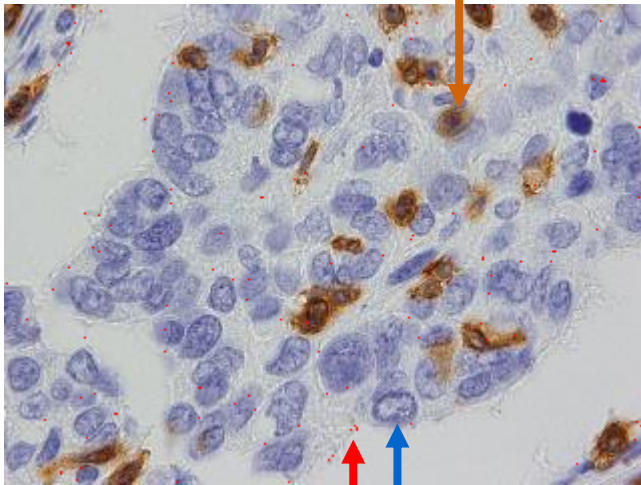
Precision Medicine





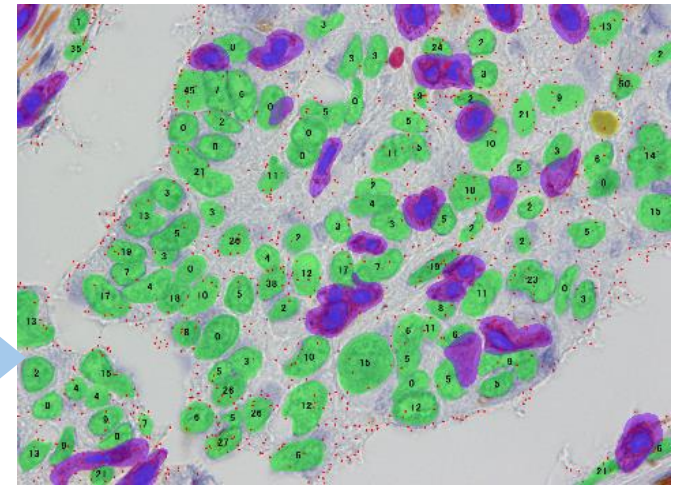
Value of HSTT

Immune Cells (T Cell)



Target Protein Cancer Cell

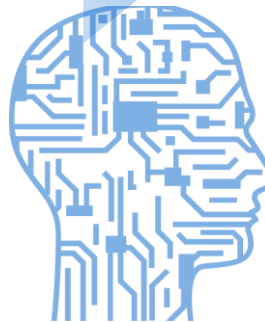
Advanced
Recognition and
Quantification with
AI



Evolving Film Technology

Nanoparticles through Original
Technology

Leveraging AI for Image
Recognition



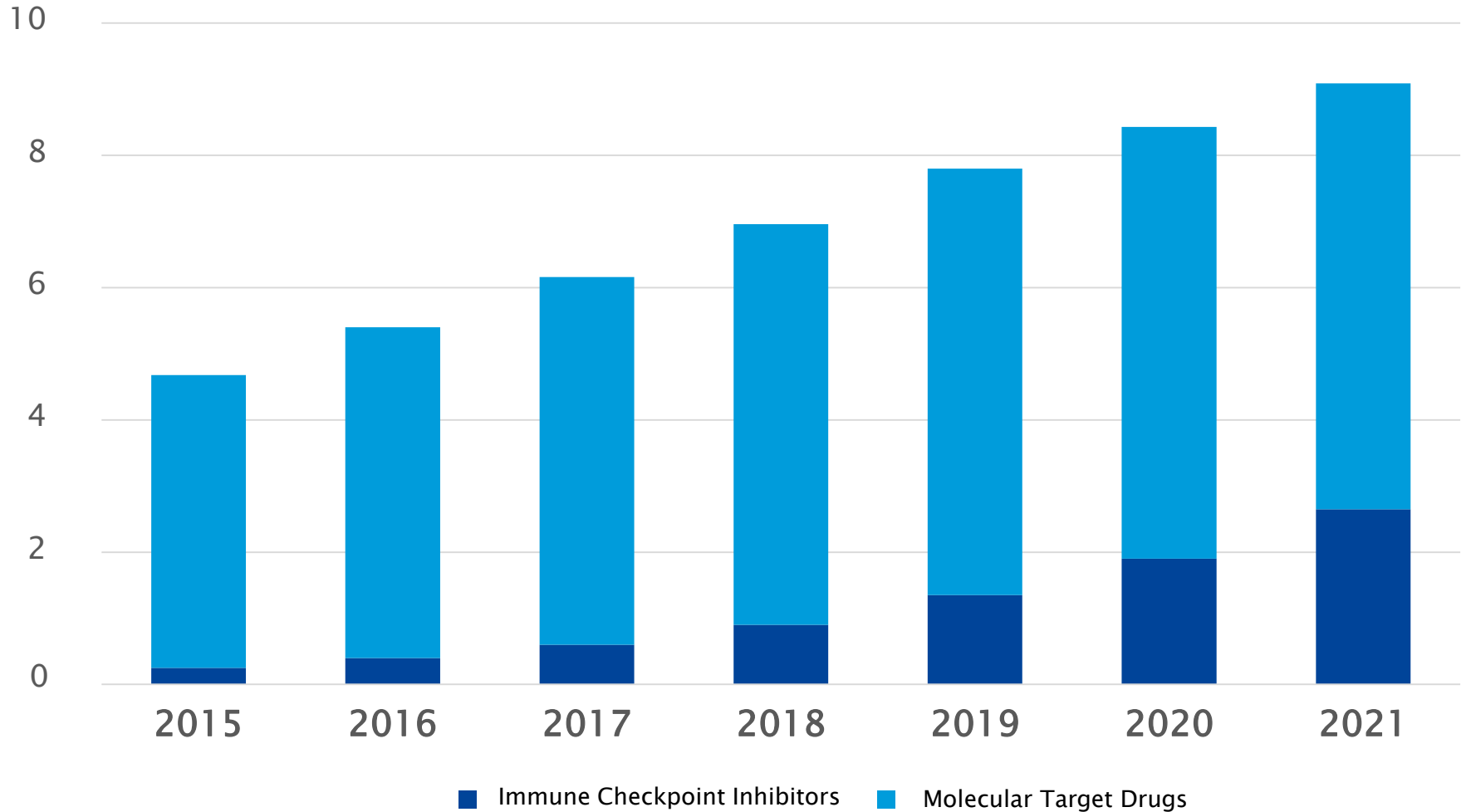
Locating Cancer and
Immune Cells

Quantifying Expression Levels
of Protein

Key for Cancer Treatment – Precision Medicine

Molecular Target Drugs and Immune Checkpoint Inhibitors Market Revenue Estimate

(JPY, Trillion)



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Why Ambry?



High Level Bioscience

- Precise diagnostic capabilities which decide courses of treatment
- Accumulated database
- Analysis through subject's own bioinformatics

Advanced Product Development

- Multiple "world's first" tests
- Extensive testing menus
- Open genetic database

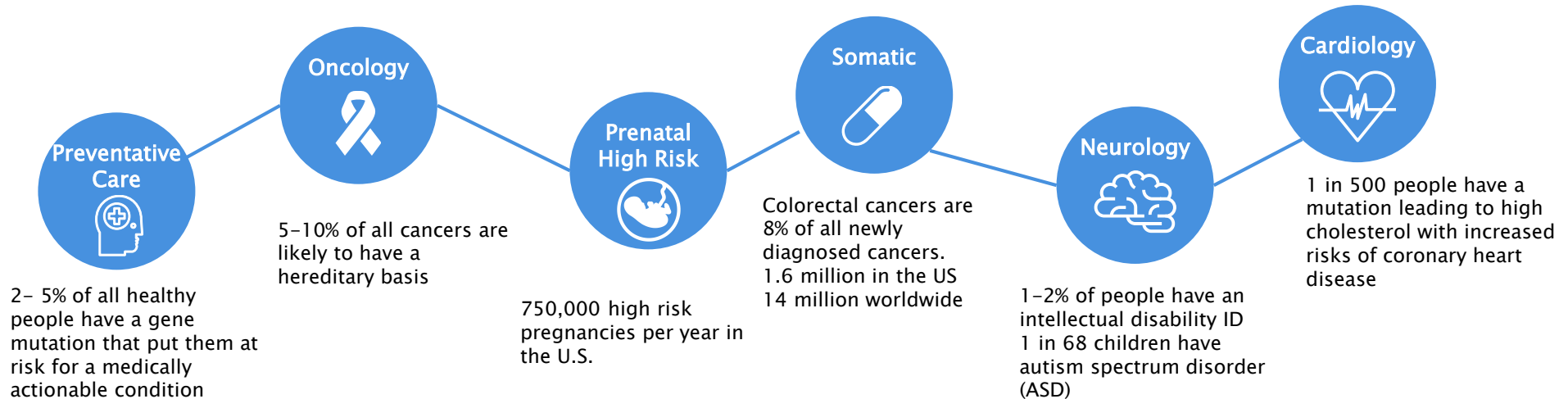
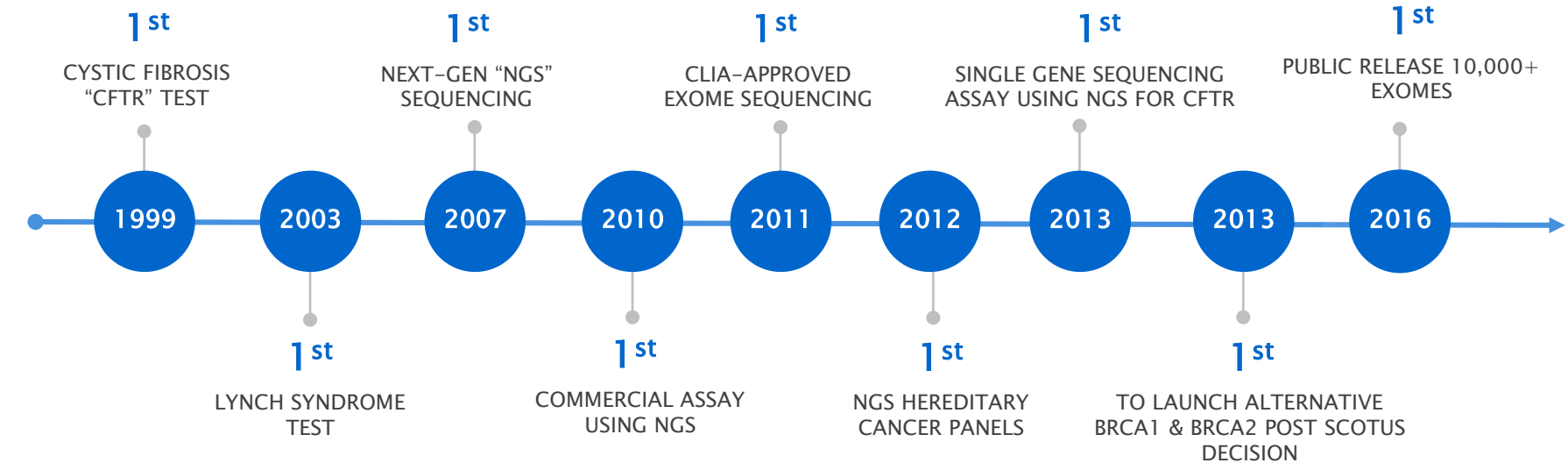
Efficient Operation

- Most sophisticated and large-scale laboratory
- High quality and short turnaround operation
- Providing easy-to-understand reports

Strong Ecosystem

- Leader in GC (Genetic Counselor) channel
- Insurance reimbursement by almost all major insurers
- Collaborating with influential research institutions

Heritage of Innovation – A Series of Groundbreaking Firsts



Efficient Operation and Powerful Ecosystem

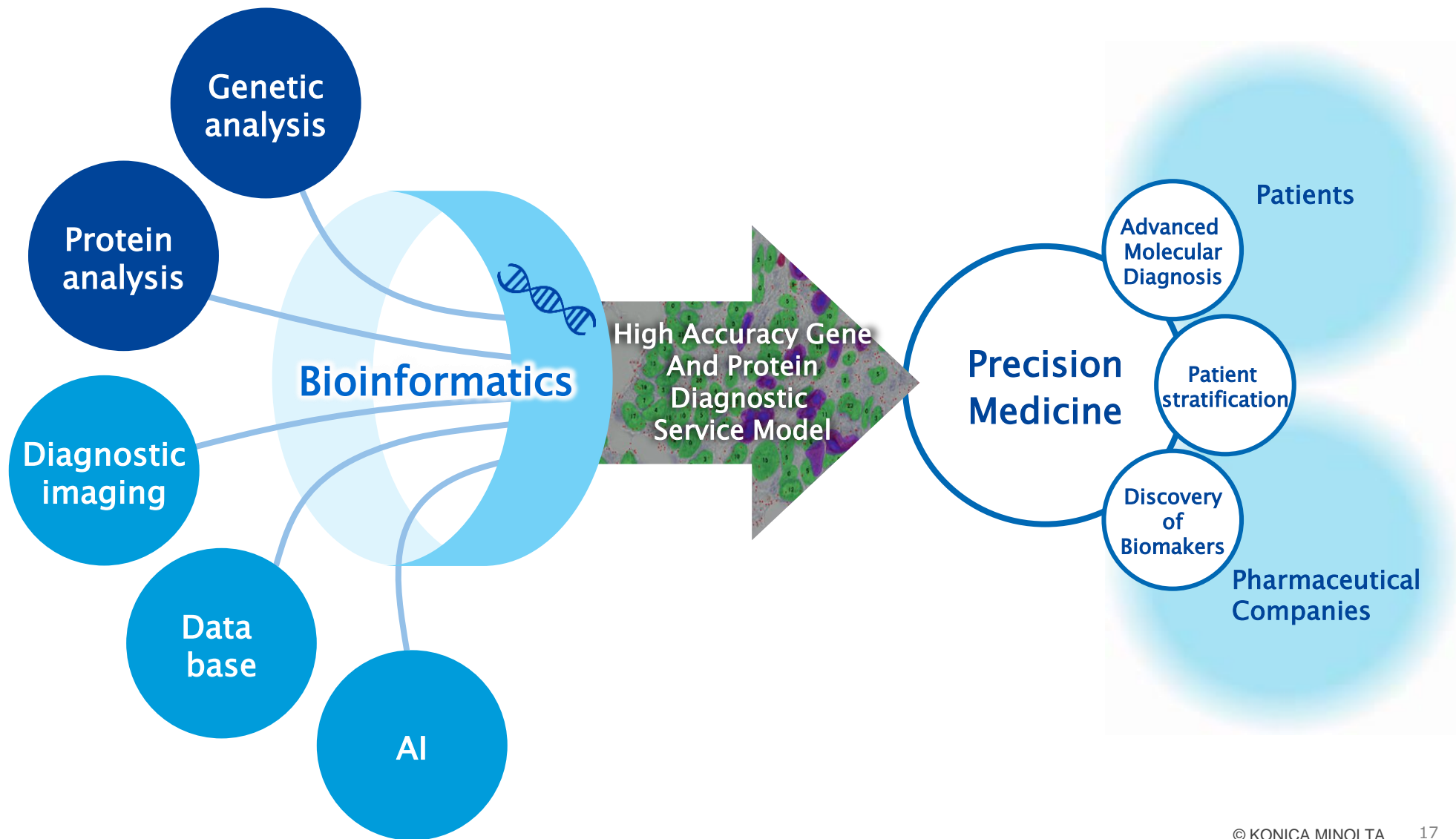
- More than 50 specialists in medicine, genetics, and bioinformatic fields
- Reducing BRCA1 /BRCA2 VUS ratio to 1.1%/2.2%
- Always testing 20,000 genes
- Capacity that allows more than 3,000 tests a day
- Short turnaround – returning test results in 14 to 21 days
- 70% share of Genetic Counselors channel
- Insurer network covering 97% of insured patients

※VUS (variant of unknown significance) : Pathogenicity of the variant can neither be confirmed or ruled out



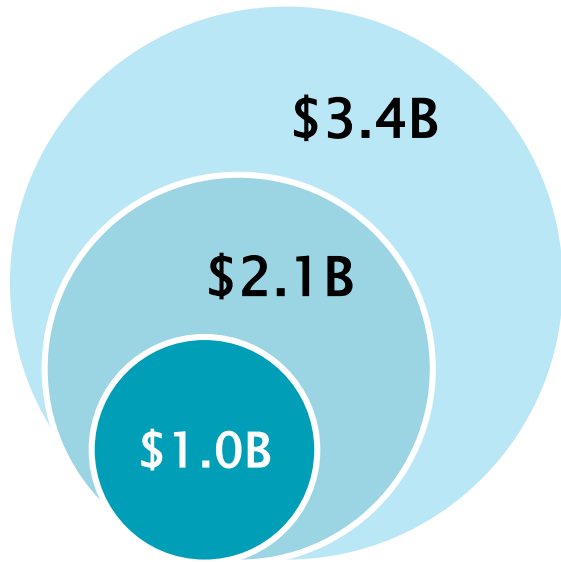
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Diagnostic Service Model Using Both Genetics and Protein Analysis



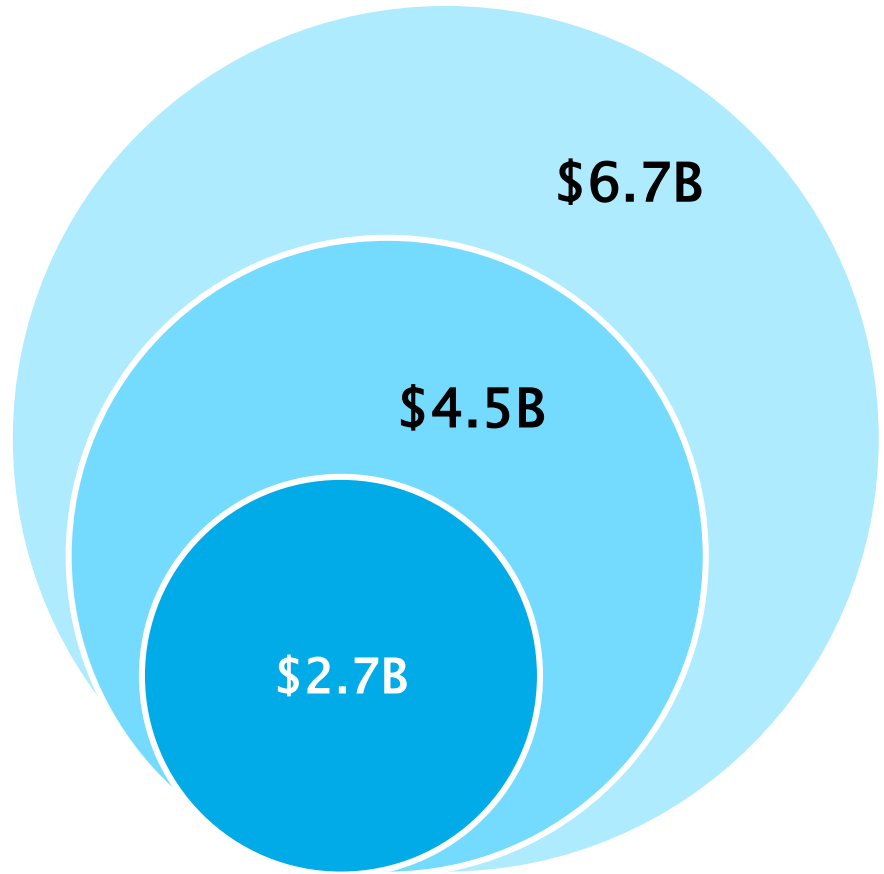
Target Market Size by Domains

Pharmaceutical Companies



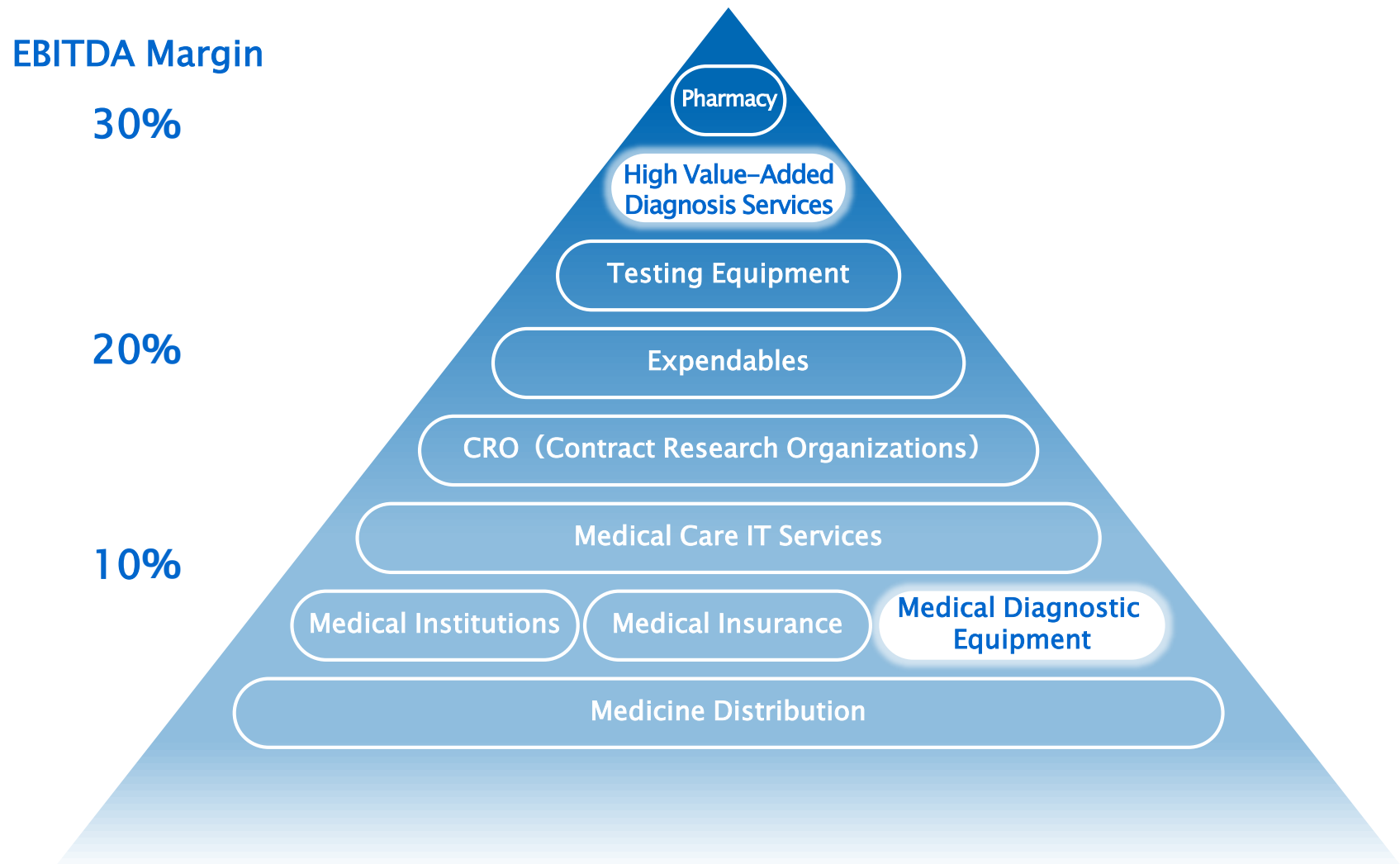
2016 ▶ 2021 ▶ 2026

Hospitals • Patients

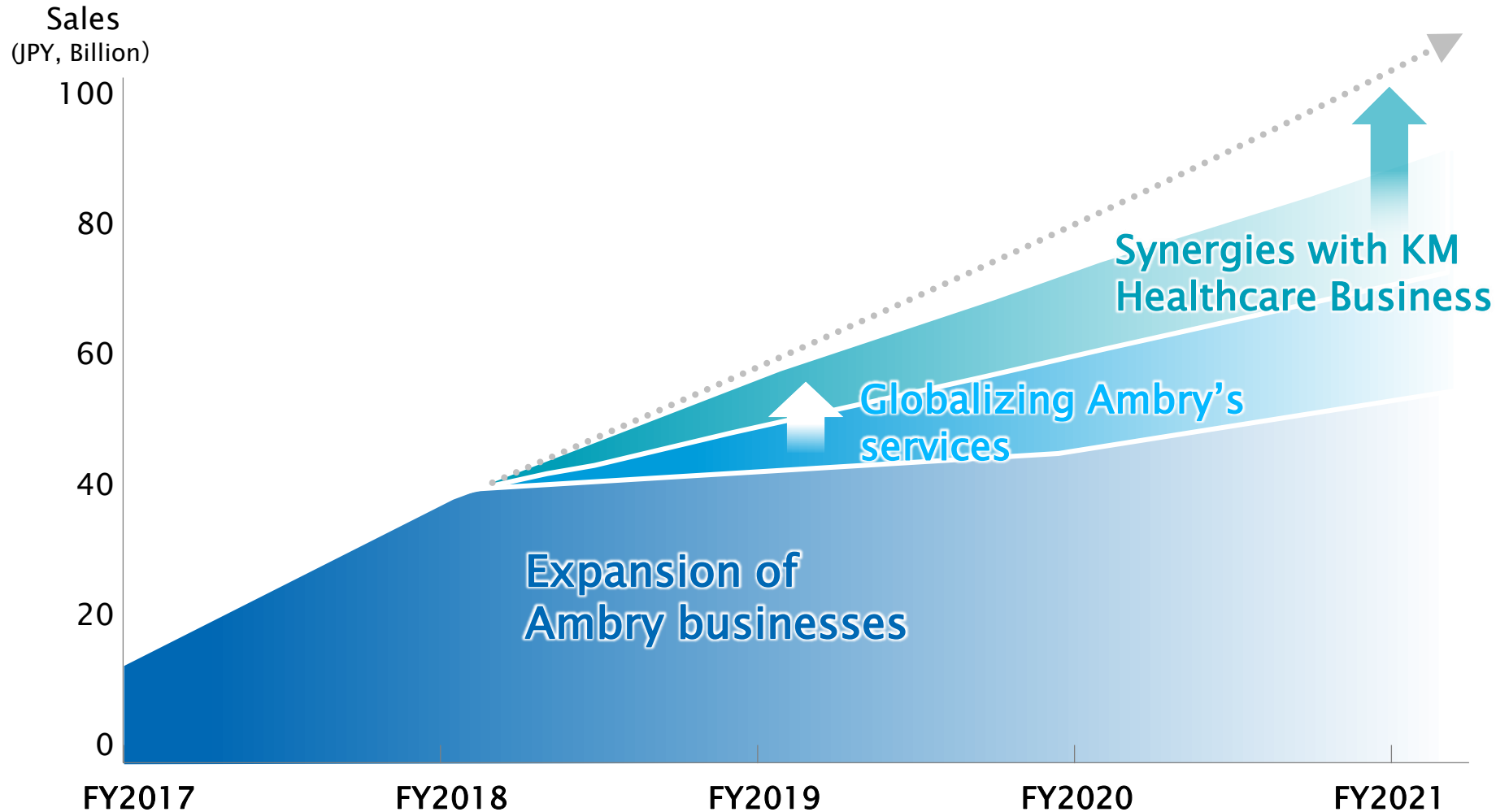


2016 ▶ 2021 ▶ 2026

Business Model and Profitability in Healthcare Market



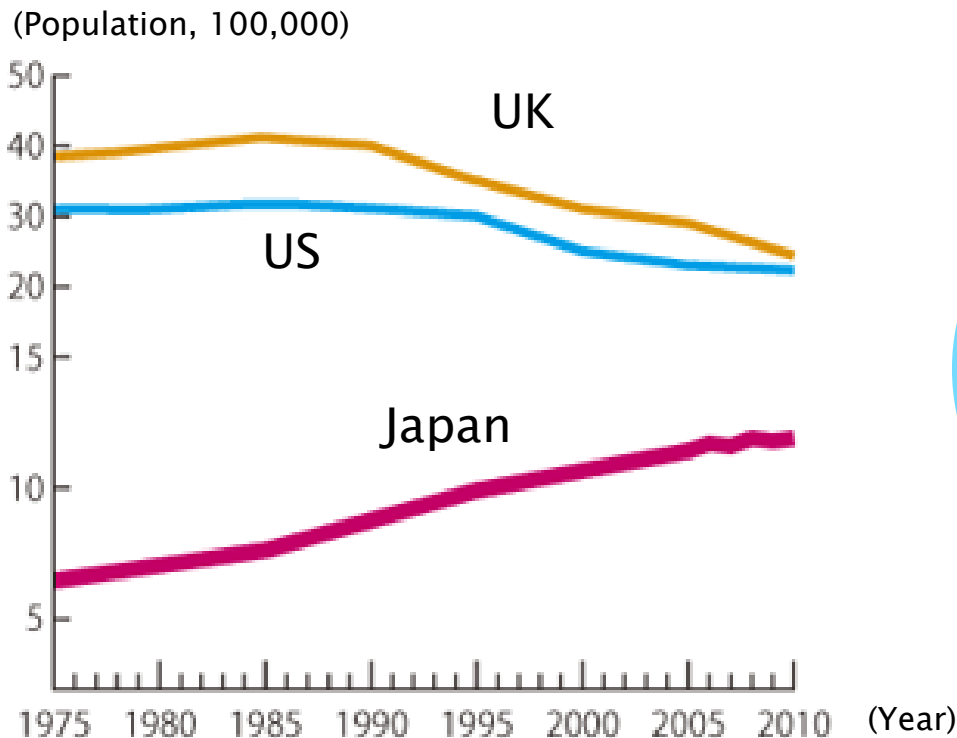
Future Plan for Bio-health Business



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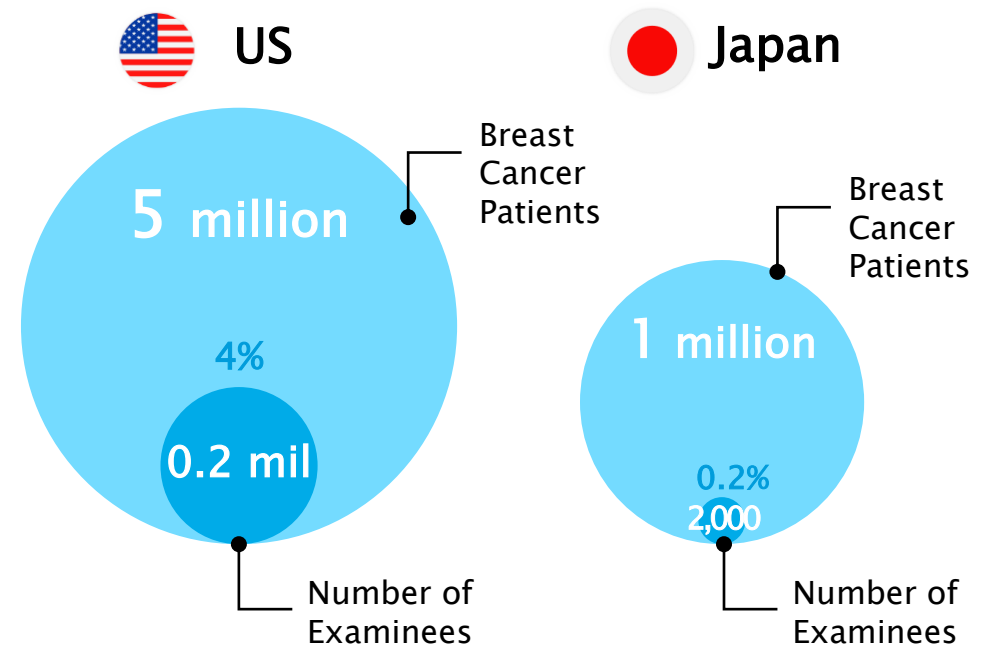
Mortality and Exam Rate for Breast Cancer in Japan

Mortality Rate is Increasing Only in Japan Amongst Major Developed Countries



Sources :
 Cancer Research UK Surveillance Research Program, NCI
 Ministry of Health, Labor and Welfare (Vital Statistics, 2010)

Examination Rate is Low for Japanese Females



Human genetic test (hereditary)

In Japan, there is no high precision genetic testing service based on the results of large-scale genetic data analysis.



Ambry Genetics™

State-of-the-art gene diagnostic technology
Database
AI analysis

Human genetic test (hereditary)

Ambry has established the business in US, and operates a proven high precision genetic testing service.

Genetic analysis designed for Japanese characteristics

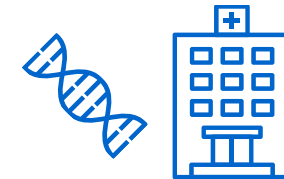
Contribution to promotion of national genome strategy

Collaboration with world-leading Japan's genome Research studies (3 large genome banks)

Network with core medical institutions

Support medical insurance

Expansion of the genetic counselors' community



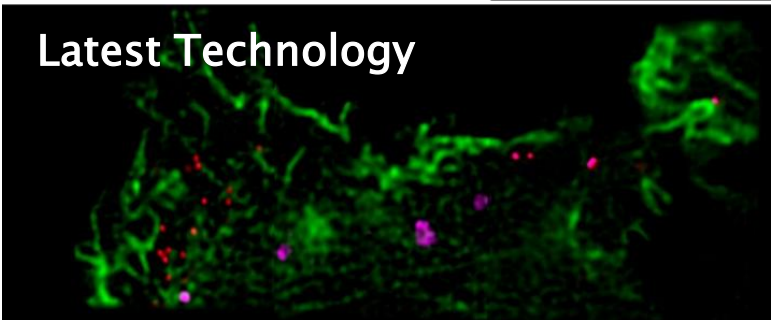
Research Findings

Behavior Observation of Antibody Drugs
with super-resolution microscope
Conical Diffraction Microscopy (CODIM)

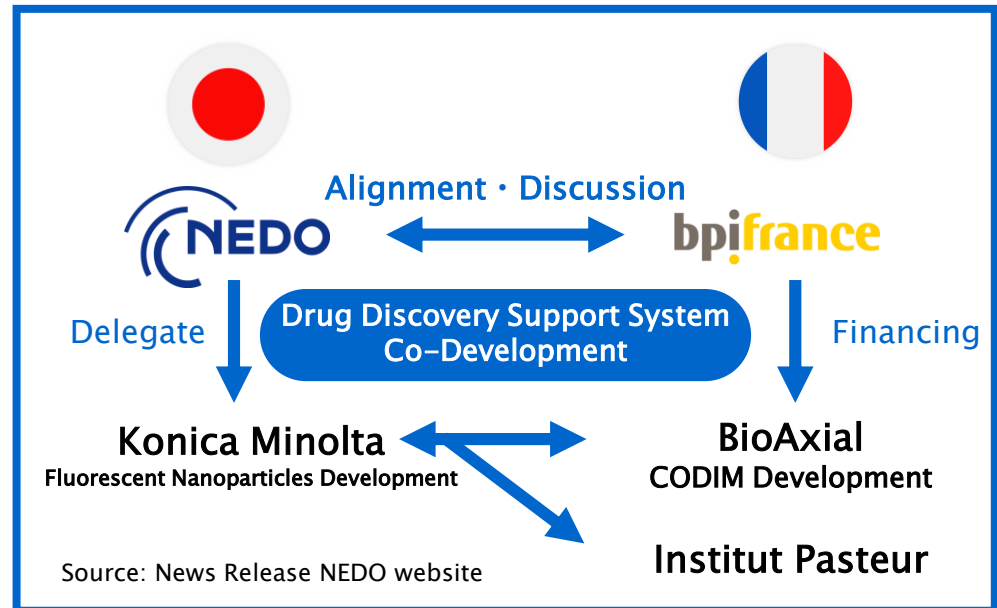
Conventional Technology



Latest Technology



- Leveraging Japan-France international fund
- Japan-France co-research to develop support system for drug discovery
- Contributing to improve drug discovery process by developing PK/PD testing technology, taking advantage of HSTT



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Acquisition Structure and Schedule

Acquisition Price	<ul style="list-style-type: none">■ Ambry acquisition price : USD 800 Million■ Performance-linked earn-out : USD 200 Million (max)
Investment Ratio	<ul style="list-style-type: none">■ KM (US sales subsidiary) : 60%■ INCJ : 40%
Funding	<ul style="list-style-type: none">■ Considering use of available cash and hybrid loans
Impact on Financials	<ul style="list-style-type: none">■ Scheduled to announce the impact of goodwill, amortization of intangible assets and fixed assets after the completion of acquisition
Schedule Going Forward	<ul style="list-style-type: none">■ Closing expected in October, 2017■ Expected to be reflected on consolidated results from Q3 FY2017

Giving Shape to Ideas



KONICA MINOLTA