



SOFIVA GENOMICS



Stock Code 6615

Investor Conference

2025 / 06 / 25

Chairman
Yi-Ning Su, MD. Ph.D

Disclaimer

All statements for investors contain information that represent, other than historical facts, SOFIVA's plans and forward-looking statements are based upon management's current assumptions.

Environmental changes and other important factors could cause actual results to differ materially from those expressed in our statements.

Investors should carefully consider the investment objectives and risks before investing.



SOFIVA - The Dual Operating Strategy

Maternal Fetal Medicine

Precision Cancer Medicine

Genetic Screening Category	Servicing Specialty	Target
Reproductive	IVF Center	IVF Embryo Screening
Prenatal	OB-GYN	Pre-pregnant couples Pregnant couples
Newborn	Pediatrics, Neonatology	Child Newborn
Cancer	Cancer-related Specialty	All Target Audience (Pre-Cancer & Patient)
Rare Disease	Genetics-related Specialty	All Target Audience
Precision Medicine	Treatment-related Specialty	All Target Audience

Maternal Fetal Medicine and Precision Cancer Medicine One Stop Service

Reproductive

- **PGT-M**
- **PGT-A**
- niPGT-A

Rare Diseases

- Hearing Loss Genetic Test v1.0/v2.0/v3.0
- Achondroplasia
- Osteogenesis Imperfecta
- Duchenne Muscular Dystrophy
- Wilson's Disease
- Marfan Syndrome
- Whole Exon Sequencing Genetic Testing

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Prenatal

- **NIPS**
- Array
- Karyotyping
- **Carrier Scan**
- SMA Genetic Testing-SMN gene
- Fragile X Genetic Testing-FMR1 gene
- Thalassemia Genetic Testing-HBA,HBB gene
- Folate Metabolism Genetic Testing-MTHFR gene

Cancer

- **Cancer Monitor**
- **Cancer Scan**
- Cancer Risk v1.0/v2.0
- HPV Screening

Newborn

- **Baby Scan**
- Hearing Loss Genetic Screening
- CCHS Genetic Screening
- Congenital CMV Infection Screening
- Atopic Dermatitis Genetic Screening -FLG gene

Precision Medicine

- **HRD Status**
- **CGP Genetic Test**
- BRCA1/2 Genetic Testing
- Endometrial Cancer Genetic Subtypes
- Prostate Cancer Genetic Testing



National Health Insurance (NHI)

Eligible for reimbursement under NGS
testing criteria

testing criteria

Cancer Products Compliant with NGS Health Insurance Coverage

NGS Genetic Testing

Laboratory and Testing Compliant with NGS Health Insurance Coverage

Over Ten Types of Tests

14 Types Solid Tumors

5 Types Hematologic Cancers

Compliant with Health Insurance Coverage Criteria for Various Cancer Types

BRCA1/2 Genetic Testing

Coverage of \$10,000 TWD

Small Panel ≤ 100 genes

Coverage of \$20,000 TWD

Large Panel > 100 genes

Coverage of \$30,000 TWD

可再次檢測(不包含癌症轉移)

② NGS 檢測結果須上傳至健保署，未來有新標靶藥物納入健保給付，不需重新檢測，可直捷比對資料庫，把握用藥黃金期，提升治療效益及降低民眾經濟負擔



Cancer

SOFIVA – Testing meets NGS reimbursement criteria

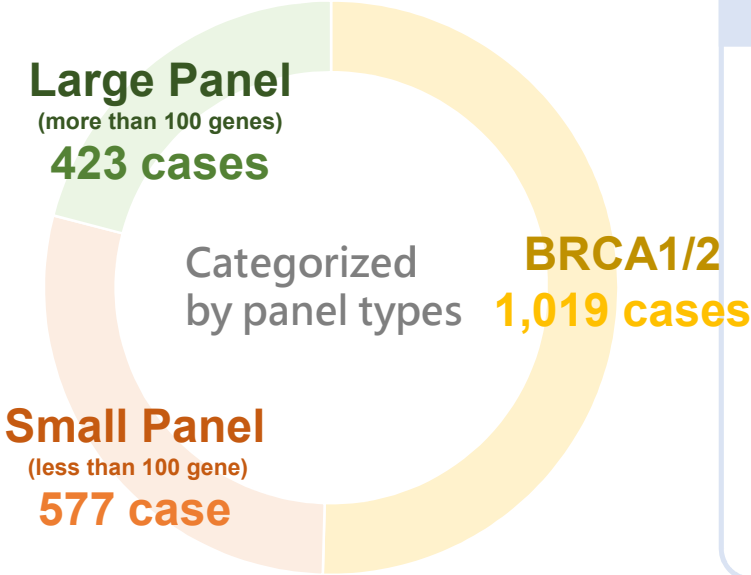
Over 10 types of Test

Reimbursable under NHI for various cancer types

Testing Service	No of Genes	Lung cancer	Triple-Negative Breast Cancer and Pancreatic Cancer	Ovarian, fallopian tube, and primary peritoneal cancers	Prostate Cancer	NTRK-associated Carcinoma	Biliary Tract Carcinoma	(Medullary) Thyroid Cancer
CM-Lung	26	☆☆						☆☆
CM-Breast	26							☆☆
CM v1.0	31	☆☆						☆☆
CM v2.1	77	☆☆						☆☆
CM v2.2	197							☆☆
CM v3.0	249	☆☆		☆	☆			☆☆
CGP	324	☆☆		☆	☆	☆☆	☆☆	☆☆
BRCA1/2	2		☆	☆	☆			
HRD	28			☆	☆			
Prostate Test	30		☆	☆	☆			
CR	44~151		☆	☆	☆			

☆ 10,000 points
 ☆☆ 20,000 points
 ☆☆☆ 30,000 points

Statistics from NHI, as of the end of February 2025



The following tests have been approved.

Category	Testing Service	No of Genes
BRCA1/2	Cancer Monitor-BRCA1/2	2
	Cancer Risk-BRCA1/2	2
	Cancer Risk-Woman Cancer	44
	Cancer Risk v1.0	67
	Cancer Risk v1.0	151
Small Panel	Cancer Monitor-BRCA1/2	26
	Cancer Monitor-BRCA1/2	31
	Cancer Monitor-BRCA1/2	77
Large Panel	CGP Cancer Genetic Testing	335

SOFIVA expands into the reimbursed testing market, driving positive revenue growth



National Health Insurance (NHI)

Eligible for drug reimbursement






Eligible for drug reimbursement

Cancer

New NHI Reimbursement PARP Inhibitor Expanded Indication

Announced by NHI (Since 1st June, 2025)

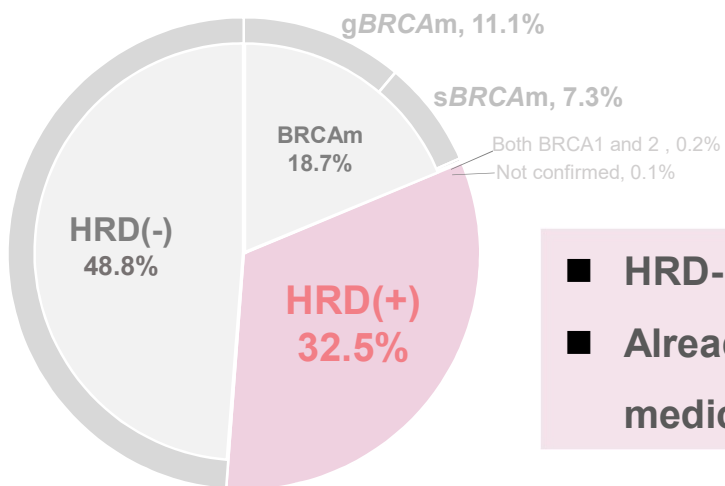
Estimated 775 patients/year

		Original NHI criteria	New NHI criteria	Estimated annual number of beneficiaries ^[1]
Ovarian Cancer	 	BRCA1/2 mutation	HRD(+)	526
Breast Cancer		Advanced or metastatic BRCA1/2 mutation	Early stage of high risk BC with BRCA mutation	152
Prostate Cancer	 	Received hormone therapy in prior line + BRCA mutation	First line + BRCA mutation	97

➔ Expanded reimbursement criteria:
Increased number of beneficiaries, increased demand for genetic testing.

Impact on ovarian cancer treatment in Taiwan

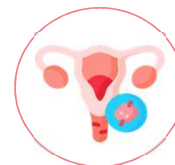
Statistics from SOFIVA (N = 1007) from 2022 to 2024



For ovarian cancer, BRCA testing is not enough — HRD(+) is also capable for NHI Reimbursement

- HRD-related tests in SOFIVA: HRD, CGP
- Already cooperated with over 30 major medical facilities

Compared to BRCA-only testing, HRD identified **30% more patients** eligible for treatment

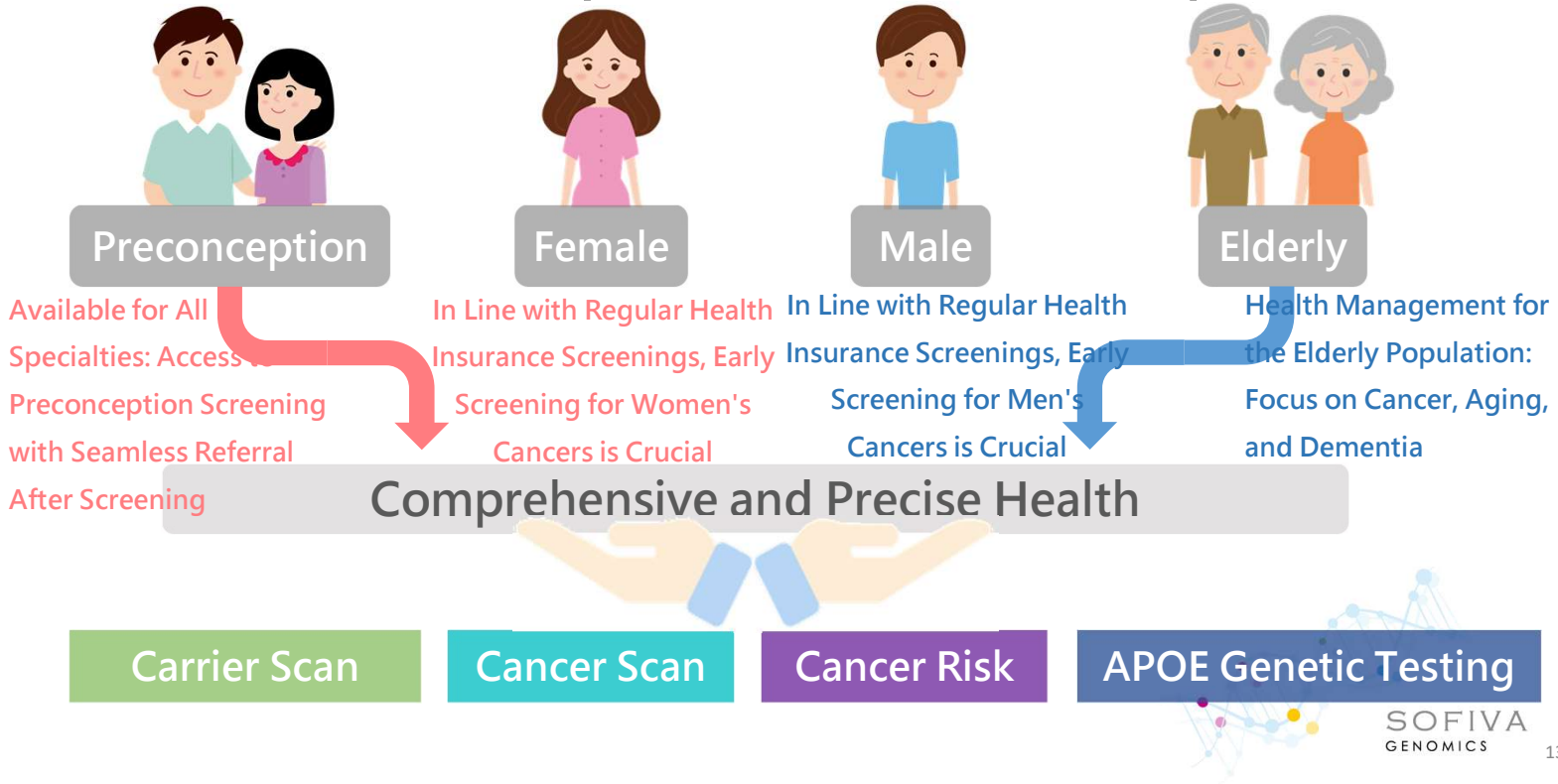




Strategic Expansion into the Health Check-up Market

Cancer Scan

Health Checkup Market : Product Expansion



Cancer: The Leading Cause of Death

Top 10 Cancer Causes of Death

In 2021, 120,000 New Cancer Cases (Published in 2023)
In 2023, 50,000 Cancer Deaths (Published in 2024)

Lung
Cancer

Liver
Cancer

Colorectal
Cancer

Breast
Cancer

Prostate
Cancer

Early Cancer Screening Reduces Mortality Risk by up to 70%
MOHW to Increase Early Cancer Screening Budget in 2025
(from 2.8 Billion to 6.8 Billion)

Oral
Cancer

Pancreatic
Cancer

Stomach
Cancer

Esophageal
Cancer

Ovarian
Cancer

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Source: MOHW, Department of Statistics

Strengthen the National Cancer Prevention and Control Program

早期癌篩、新藥基金、精準醫療 目標2030年癌死降三分之一

2024-11-29 02:40 聯合報／記者周佑政、廖靜清、賴昀岫／台北報導

+ 健保

分享 1 分享

2024 精進 國家希望工程
National Project of Hope

健康台灣
Healthy Taiwan

強化國家癌症防治計畫

目標
2030年癌症標準化死亡率降低1/3

癌症治療三箭

- 1 提升早期癌症篩檢
- 2 聚焦基因檢測與精準醫療
- 3 建立百億癌症新藥基金

十大議題

- 1 精進健康產業
- 2 健康台灣防治計畫
- 3 8年888計畫
- 4 培養醫學人員工作環境、強化醫學人力結構
- 5 精進健保永續發展
- 6 擴大心理健康支持
- 7 強化「國家癌症防治計畫」
- 8 強化居住環境健康服務
- 9 智慧醫療結合健康照護、推動生醫產業
- 10 長期3.0

衛生福利部 常務次長 周志浩 報告人

對於基因的檢測以...
那再來就是...
設立基金



Enhance Early Cancer Screening



Provide Coverage for Cancer Genetic Testing



Increase Cancer New Drug Fund by Billions



Reduce Cancer Mortality Rate by One-Third by 2030

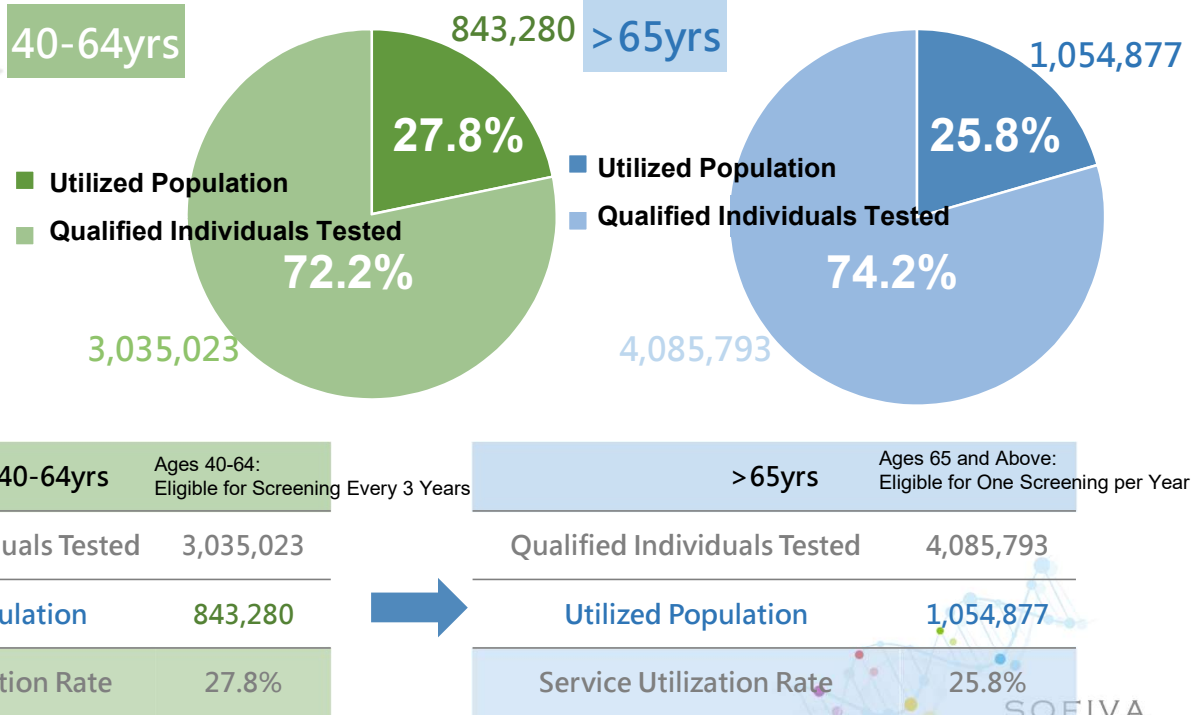
總統府健康台灣推動委員會第二次會議昨天登場，衛福部提出「強化癌症防治策略」報告。圖／擷取自總統府YT頻道

Health Check-up Market Size



衛生福利部國民健康署
Health Promotion Administration, Ministry of Health and Welfare

Utilization Rate of
Preventive Health
Services Among
Taiwanese Adults



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Source : Executive Yuan Gender Equality Committee; National Health Insurance Administration, 2022 Adult Preventive Health Services Payment Data File; Ministry of the Interior Population Statistics (Year-End Population)



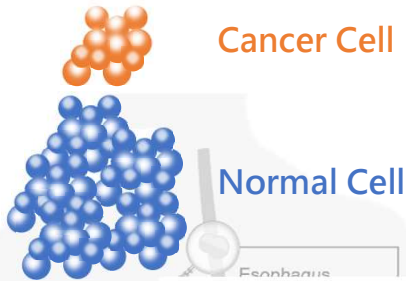
Strategic Expansion into the Health Check-up Market

Cancer Scan
Liquid Biopsy

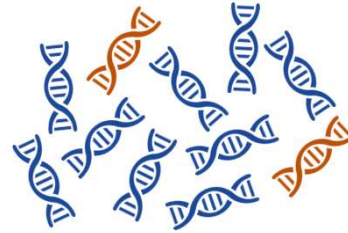
Cancer Screening

What is Liquid Biopsy?

Circulating Tumor DNA (ctDNA)

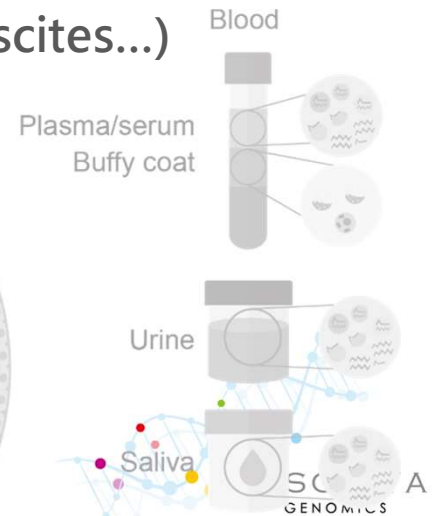
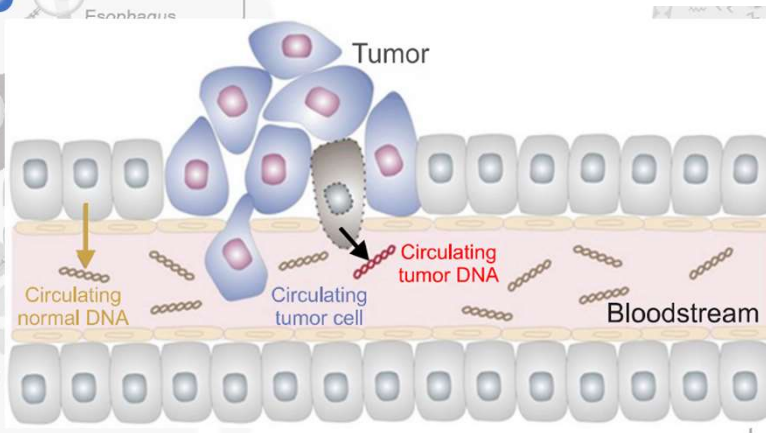


Cell Death



Short DNA fragments
NGS Technology
Identify cancer gene mutations

Blood (Urine/Ascites...)



Br J Pharm(1):3-18. Mol Diagn Ther 2019; 23(3):311-331. Chonnam Med J 2016; 52(3): 151-158.

Cancer Scan Transforming Cancer Early Detection Strategy

Traditional health check-ups



SOFIVA Cancer Scan



**Liquid
biopsy**

The cancer inside your body might not be detected by traditional health exams!

1

Traditional check-ups

SOFIVA Cancer Scan

**Health check-up
packages**

Combine imaging and biochemical markers for comprehensive cancer evaluation

2

SOFIVA
Cancer Scan

APC Mutation

Simple blood-based screening
Order suitable traditional health exams

Traditional
check-ups

Colonoscopy

3

Traditional
check-ups

Mammography

When traditional check-ups cannot confirm cancer, genetic screening can serve as a double-check tool

SOFIVA
Cancer Scan

Check for gene

**Traditional Health Check-ups + SOFIVA Cancer Scan
= Dual Protection Against Cancer**



Strategic Expansion into the Health Check-up Market

Alzheimer's Disease
Genetic Screening-APOE

Genetic Screening-APOE

Genetic Screening-APOE

Alzheimer's Disease Genetic Screening-APOE

Rising Dementia Prevalence in an Aging Population

Due to medical advances and population aging, dementia prevalence is steadily increasing. In 2023, 7.99% of people aged 65+ had dementia, with higher rates in women than men (MOHW data).

Dementia Prevalence:
All older adults: 7.99%



6.35%

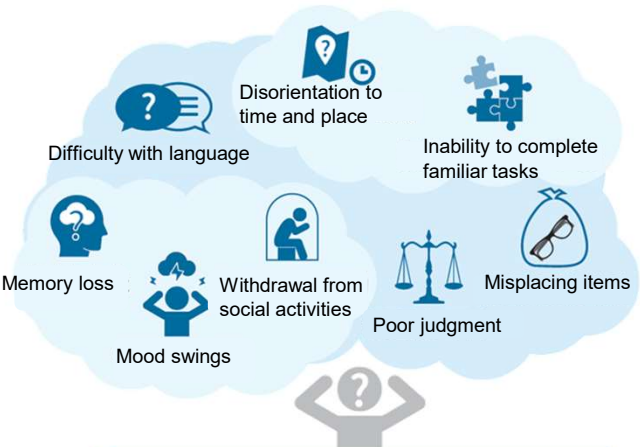
Male seniors



9.36%

Female seniors

Dementia is a disease, not a normal part of aging. Alzheimer's disease is the leading cause, accounting for approximately 57% of dementia cases.



Common Symptoms of Dementia: Memory Loss and Cognitive Changes

Alzheimer's:
60% of Dementia

Prevent Early, Protect Memory

APOE (Apolipoprotein E) is the most common genetic risk factor for late-onset Alzheimer's disease. Different APOE alleles influence the genetic risk of developing Alzheimer's. Research has also linked APOE variants to cardiovascular disease, dyslipidemia, diabetes, and metabolic syndrome.

Studies show that 75% of individuals with the APOE $\epsilon 4/\epsilon 4$ genotype develop Alzheimer's pathology by age 65. APOE genetic testing can help assess Alzheimer's risk. With a healthy lifestyle and balanced diet, early prevention is possible — protect your memory starting today!



75% of high-risk genotypes show pathology by age 65
→ Genetic testing enables early prevention.

22

- Aβ antibody drugs: No longer just symptom relief, but actual improvement of cognitive decline.

New Alzheimer's drugs obtained Taiwan FDA indication in February and April

Self-pay cost of at least NT\$1.5 million

	<p>For the treatment of patients with mild cognitive impairment and mild Alzheimer's disease (early Alzheimer's disease) due to Alzheimer's pathology. The above patients must match the population in which treatment was initiated in clinical trials, and are limited to apolipoprotein E ε4 heterozygotes (ApoE ε4 heterozygous) or non-carriers of the apolipoprotein E ε4 allele (non-carriers). Note: This indication is granted under accelerated approval based on preliminary clinical efficacy results (from a Phase 3 clinical trial). A confirmatory trial is required to verify the clinical benefit of this indication.</p>
	<p>Treatment of patients with mild cognitive impairment and mild Alzheimer's disease (early Alzheimer's disease) due to Alzheimer's pathology, consistent with the population in which treatment was initiated in clinical trials, and limited to apolipoprotein E ε4 heterozygotes (ApoE ε4 heterozygous) or non-carriers of the apolipoprotein E ε4 allele (non-carriers).</p>

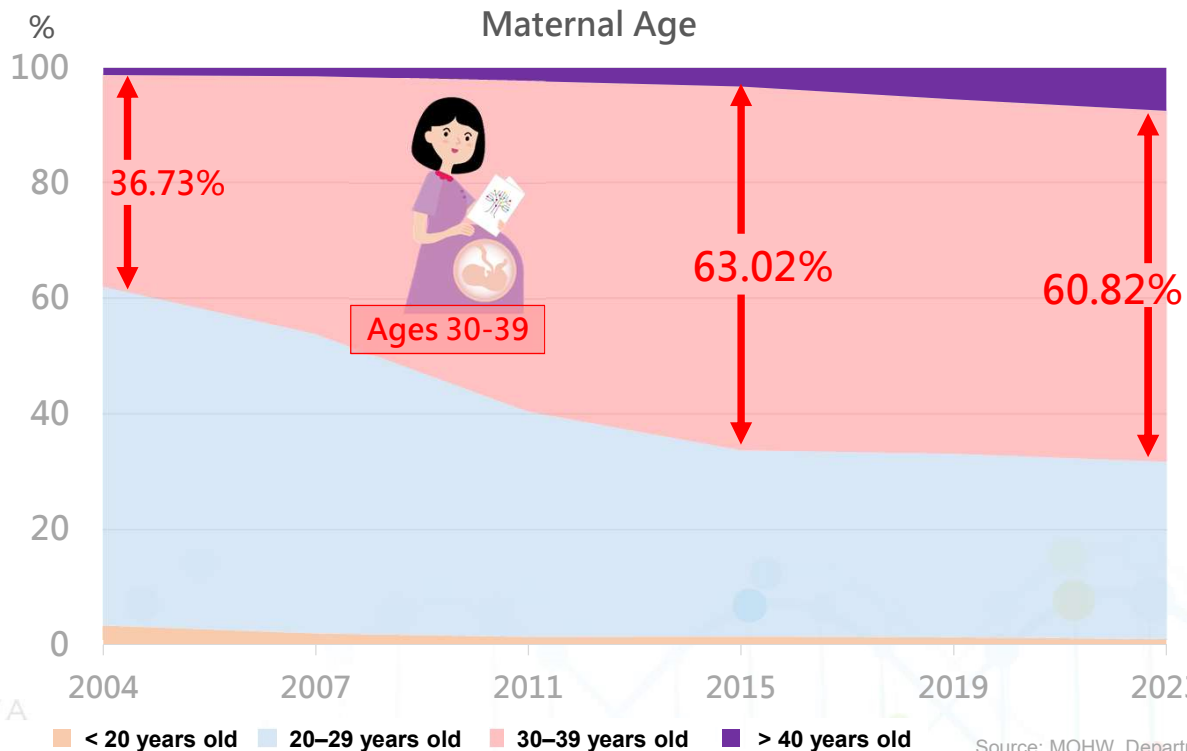
Alzheimer's Disease Genetic Screening-APOE :
Risk assessment + medication safety evaluation



Reproductive Market Trends

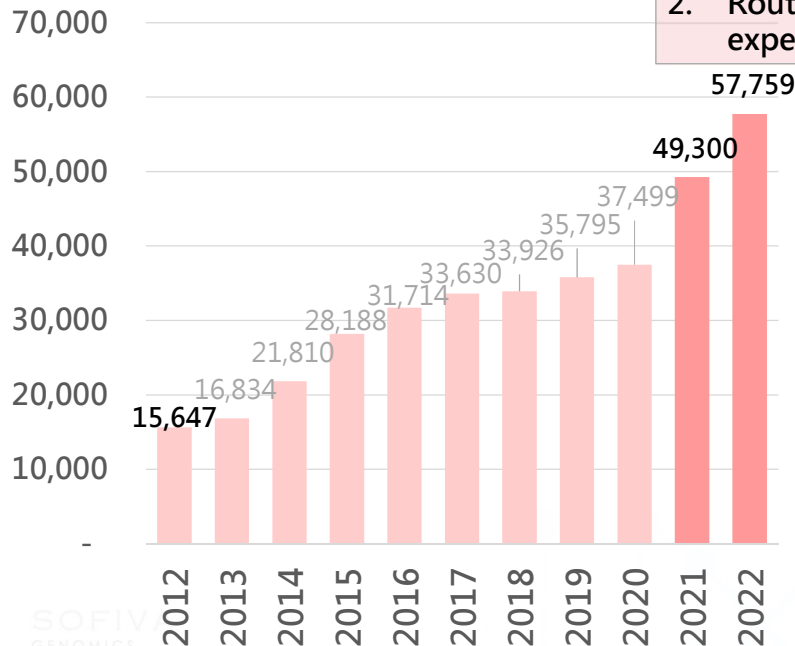
Rising Demand for Later-age Fertility

Rising Trend of Advanced Maternal Age Pregnancies



Increasing Demand for PGT-A

Treatment Cycles per Year



1. The proportion of embryonic abnormalities increases with maternal age, leading to **higher quality standards**.
2. Routine chromosomal screening of embryos (PGT-A) is experiencing **increased demand**.



Infertile couples

15%



Number of
IVF Cycles

15,000 → 60,000



Assisted Reproductive
Institutions Licensed by
MOHW

**74 → 102
institutions**



IVF Subsidy
Launched on
July 1, 2021

Proportion of
Total Newborns

20%

PGT-A Development Trends

Technical Perspective: Future Advances in PGT-A

Key Clinical Discussion: Mosaic Embryo

Global Trends and Professional Society Consensus



Genes. (Basel). 2023 Dec 21;15(1):18.
Proc Natl Acad Sci USA. 2021 Nov 16;118(46):e2109307118.
Fertil Steril. 2023 Nov;120(5):973-982.
Fertil Steril. 2024 Sep;122(3):421-434.



Review Healthy Live Births after the Transfer of Mosaic Embryos: Self-Correction or PGT-A Overestimation?

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Abstract: The implementation of PGT-A for aneuploidy (PGT-A) has led to (1) sample. Reproductive medicine.

Haplotype-aware inference of human chromosome abnormalities

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Edited by Alexandra Chakravarti, New York University Langone Medical Center, New York, NY, and approved September 30, 2023 (received for review May 11, 2023)

Clinical management of mosaic results from preimplantation genetic testing for aneuploidy of blastocysts: a committee opinion

Practice Committee of the American Society for Reproductive Medicine and the Society for Assisted Reproductive Technology
Professional Group
American Society for Reproductive Medicine, Washington, DC

This technical document represents a growing number of published studies about mosaic embryos transfer and provides current evidence-based recommendations for the clinical management of embryos with mosaic results on preimplantation genetic testing for aneuploidy (PGT-A). This document reflects the consensus of the Practice Committee of the American Society for Reproductive Medicine (ASRM) and the Society for Assisted Reproductive Technology (SART) published in 2023 (DOI: 10.1016/j.fertnstert.2023.08.018).

Key Words: Preimplantation genetic testing for aneuploidy, assisted reproductive technology, mosaicism, aneuploidy, embryo

The value of preimplantation genetic testing for aneuploidy (PGT-A) as a universal screening test for all patients undergoing in vitro fertilization (IVF) has not been established (1). Indeed, 2 randomized controlled trials have shown that PGT-A is improving live birth (LB) rates, particularly in women >35 years of age (2,3). However, the use of PGT-A has continued to increase in the US. In particular, the significance of suspected chromosomal mosaicism in embryos from a single biopsy and subsequent report since the first known LB from these embryos were documented in 2015 (4). Although previous investigations of mosaic embryos and preimplantation genetic testing (PGT) results have been limited, the presence of evidence suggests that these data may

not apply to preimplantation embryos. This document aims to provide a balanced discussion, review the most recent data about embryonic mosaicism, and provide evidence-based guidance to providers facing decisions about embryo transfer and counseling their patients about the possibility of mosaic embryo transfer (MET).

OVERVIEW OF MOSAICISM REPORTING IN PGT-A

Traditionally, an individual genetic mosaicism is defined as the presence of more than one chromosomally distinct cell line in one individual. In humans, mosaicism from de novo chromosomal changes is considered aneuploidy. Mosaicism is diagnosed in an individual only if genetically when the presence of cells with one lost and abnormal chromo-

somal complement is observed after a standard cytogenetic karyotype. For example, in a blood or marrow, this might be detected by cytogenetic techniques, including G-banding, the most common method of analysis. In PGT-A, when a fluorescence oligonucleotide to measure the amount of DNA represented by each chromosome is compared with a normal reference. Therefore, the diagnosis of chromosomal mosaicism in a preimplantation embryo is not determined using the chromosomal complement of distinct, original and clonally individual cells, but instead, it is inferred from collectively analyzing the DNA extracted and amplified from a group of cells and observing an intermediate chromosomal copy content on an 8000 platform (Fig. 1).

An intermediate copy number be-

ring is ending in vitro, which can be used to identify the origin of the embryo.

The use of preimplantation genetic testing for aneuploidy: a committee opinion

Practice Committee of the American Society for Reproductive Medicine and the Society for Assisted Reproductive Technology
American Society for Reproductive Medicine, Washington, DC

The use of preimplantation genetic testing for aneuploidy (PGT-A) in the United States has been increasing steadily. However, the clinical management of embryos with mosaic results from PGT-A is not clear. The purpose of this document is to provide evidence-based recommendations for the clinical management of embryos with mosaic results from PGT-A. This document reflects the consensus of the Practice Committee of the American Society for Reproductive Medicine (ASRM) and the Society for Assisted Reproductive Technology (SART) published in 2023 (DOI: 10.1016/j.fertnstert.2023.08.018).

Key Words: Reproductive medicine, PGT-A, aneuploidy, embryo, mosaicism

Traditionally, mosaicism was defined as the presence of more than one chromosomally distinct cell line in one individual. In humans, mosaicism from de novo chromosomal changes is considered aneuploidy. Mosaicism is diagnosed in an individual only if genetically when the presence of cells with one lost and abnormal chromosomal complement is observed after a standard cytogenetic karyotype. For example, in a blood or marrow, this might be detected by cytogenetic techniques, including G-banding, the most common method of analysis. In PGT-A, when a fluorescence oligonucleotide to measure the amount of DNA represented by each chromosome is compared with a normal reference. Therefore, the diagnosis of chromosomal mosaicism in a preimplantation embryo is not determined using the chromosomal complement of distinct, original and clonally individual cells, but instead, it is inferred from collectively analyzing the DNA extracted and amplified from a group of cells and observing an intermediate chromosomal copy content on an 8000 platform (Fig. 1).

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CLINICAL OUTCOMES IN FAVORABLE PROGNOSIS PATIENTS

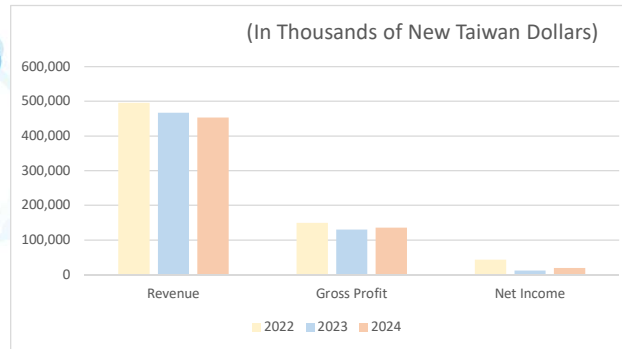
Previous work revealed a 90% clinical pregnancy rate from the Society for Assisted Reproductive Technology (SART) after PGT-A. The purpose of this document is to provide evidence-based recommendations for the clinical management of embryos with mosaic results from PGT-A. This document reflects the consensus of the Practice Committee of the American Society for Reproductive Medicine (ASRM) and the Society for Assisted Reproductive Technology (SART) published in 2023 (DOI: 10.1016/j.fertnstert.2023.08.018).



Operating Performance

Operational Performance

Statements of Comprehensive Income of last 3 years

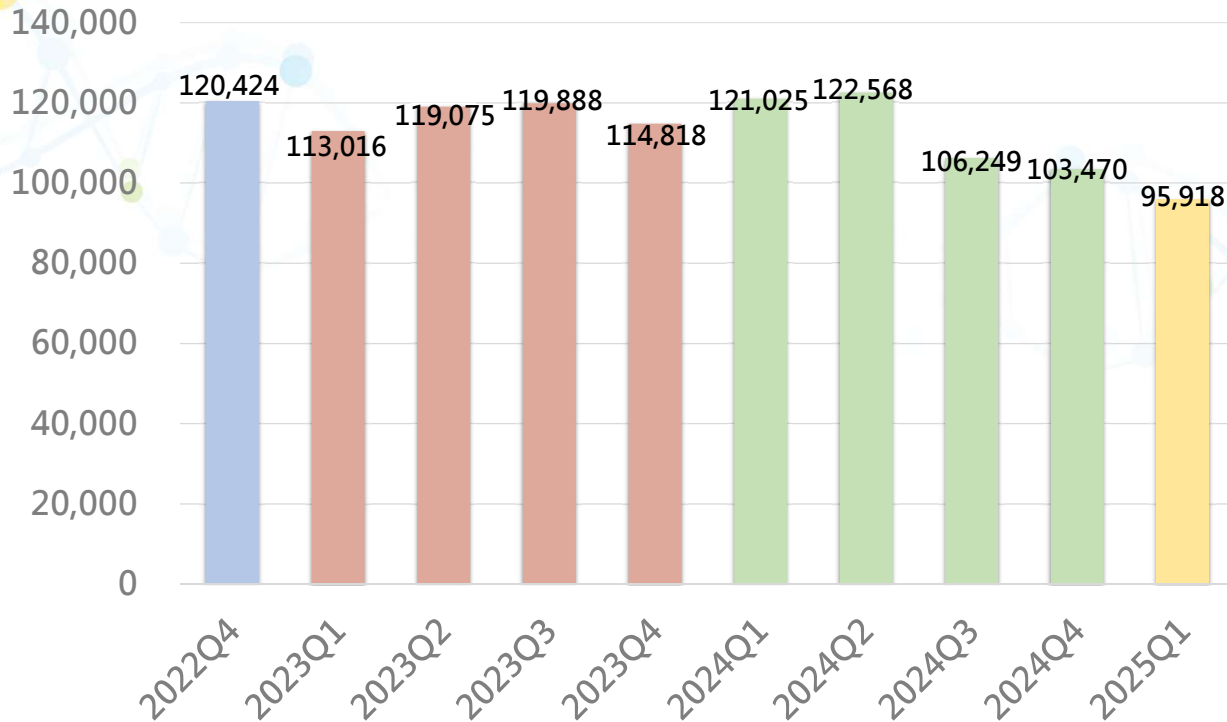


(In Thousands of New Taiwan Dollars)			
	2022	2023	2024
Revenue	495,775	466,797	453,312
Gross Profit	148,988	129,908	135,661
Gross Profit (%)	30.05%	27.83%	29.93%
Opreating Income	3,787	-15,882	-3,373
Total Non-Opreating Income	43,562	24,785	26,988
Pre-Tax Income	47,349	8,903	23,615
Net Income	43,153	11,923	19,128
EPS	2.00	0.54	0.86

Revenue Trend : The Last 10 Quarters

(In Thousands of New Taiwan Dollars)

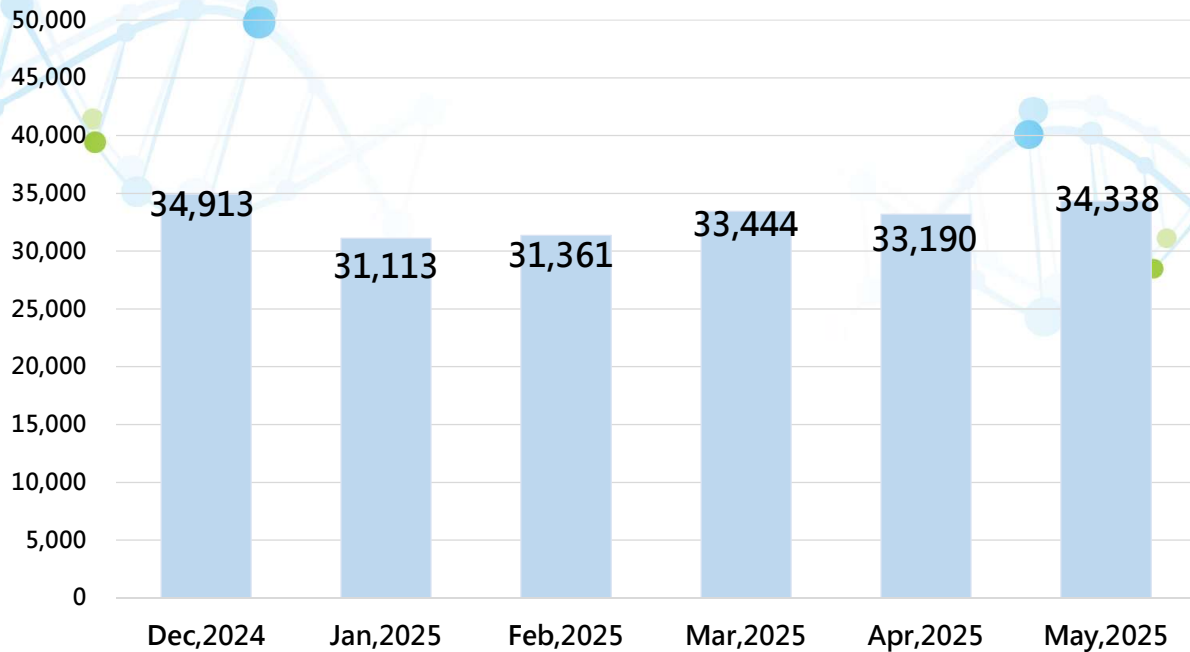
Revenues of Last 10 Quarters



Revenue Trend : The Last 6 Months

Revenues of Last 6 Months

(In Thousands of New Taiwan Dollars)



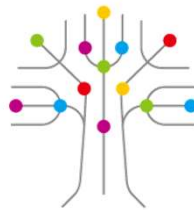
Investment Performance

(In Thousands of New Taiwan Dollars)

DIANTHUS CO.,Ltd

Statements of Comprehensive Income

	2022	2023	2024
Sales Revenue	689,795	695,831	803,024
Comprehensive Income	253,022	142,929	153,057
Capital Stock	895,000	895,000	895,000
Investment from Sofiva	148,250	148,250	148,250
Shareholding Ratio of Sofiva	16.56%	16.56%	16.56%
Investment Income of Sofiva	41,902	23,671	25,348



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