Conquer Cancer through AI

Lunit

DISCLAIMER

This presentation has been prepared by Lunit Inc. solely for information purposes. The information contained in this presentation has not been independently verified. No representation or warranty express or implied is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information or any opinion contained herein. The information contained in this presentation should be considered in the context of the circumstances prevailing at the time and will not be updated to reflect material developments that may occur after the date of the presentation. Neither Lunit Inc. nor any of its affiliates, officers, directors or advisors shall have any liability whatsoever (in negligence or otherwise) for any loss arising from any use of this presentation or its contents or otherwise arising in connection with this presentation. This presentation is being communicated only to persons who have professional experience in matters relating to investments and to persons to whom it may be lawful to communicate it (all such persons being referred to as “relevant persons”). This presentation is only directed at relevant persons and any investment or investment activity relating to this presentation is only available to relevant persons or will be engaged in only with relevant persons. Solicitations resulting from this presentation will only be responded to if the person concerned is a relevant person. Other persons should not rely or act upon this presentation or any of its contents. This presentation does not constitute or form part of an offer, invitation or recommendation to purchase or subscribe for any securities, and no part of it shall form the basis of or be relied upon in connection with any contract, commitment or investment decision in relation to any securities. No money, securities or other consideration is being solicited, and, if sent in response to this presentation or the information contained herein, will not be accepted. The presentation may contain statements that reflect Lunit Inc.’s beliefs and expectations about the future. These forward-looking statements are based on a number of assumptions about the future, some of which are beyond Lunit Inc.’s control. Such forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those contemplated by the relevant forward-looking statements. Lunit Inc. does not undertake any obligation to update any forward-looking statements to reflect events that occur or circumstances that arise after the date of this presentation. Certain data in this presentation was obtained from various external data sources, and Lunit Inc. has not verified such data with independent sources. Accordingly, Lunit Inc. makes no representations as to the accuracy or completeness of that data, and such data involves risks and uncertainties and is subject to change based on various factors. You agree to keep the contents of this presentation strictly confidential. All or any part of this presentation may not be taken away, reproduced, redistributed or retransmitted in any manner. By attending this presentation, you are agreeing to be bound by the foregoing limitations.

Company Overview

2023 INVESTOR RELATIONS

Lunit

Conquer Cancer through AI

HQ Seoul I Boston I Amsterdam

About Lunit

Since 2013 I 1st Generation Medical AI Company I Listed in KOSDAQ since 2022

Global Investors

Backed by leading global investors

- Raised $122M while unlisted

Foreign investment =$73M 60%

- 25% of global shareholders after IPO

➡ Top 3% of KOSDAQ listed 1,600 companies in Korea

GUARDANT
FUJIFILM
君联资本 LEGEND CAPITAL
HealthQuest CAPITAL
TYBOURNE
CASDIN CAPITAL
SoftBank Ventures Asia

Global Partners

Established partnerships with industry giants

Chosen by leading medical device companies

FUJIFILM
PHILIPS
IBM
GE Healthcare
HOLOGIC
SECTRA
AGFA HealthCare

Chosen by leading bio companies

GUARDANT

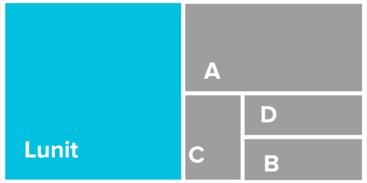
Multiple global pharmas

Industry Leader

Best-in-class AI technology and products

- Unprecedented “AA-AA” highest level in technology assessment among healthcare companies
- Best performance proven by direct comparison with global competitors in various studies
- Highest market cap. among listed medical AI companies (2023.04)

Market Cap. of medical AI companies in Korea



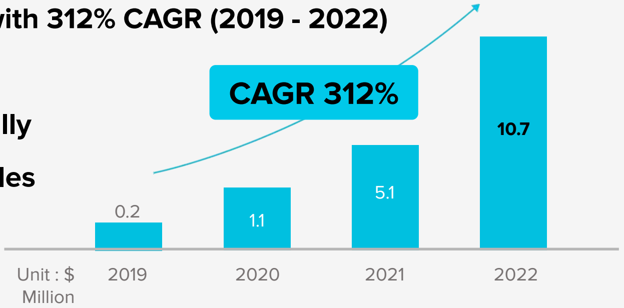
3x higher than 2nd place company

Commercial Success

Successfully scaling out revenue growth

- High revenue growth with 312% CAGR (2019 - 2022)
- Lunit INSIGHT (X-RAY)

➡ First company globally to exceed $8M in sales



Company Overview

Core Competence **#1 Technology**

Strong Foundation

Tech-based startup

- Six cofounders from KAIST
- First deep learning startup in Korea
- Top-tier AI researchers

KAIST

AI Researchers	52	18%
Software Developers	70	24%

Cofounders

Anthony Paek
Former CEO &
Executive Chairman

Sunggyun Park
Cancer Screening
Chief Product Officer

Kyunghyun Paeng
Oncology
Chief Product Officer

Donggeun Yoo
Chief AI Officer

Minhong Jang
Cancer Screening
Chief Business Officer

Jeongin Lee
VP of IT &
Infrastructure

Best-in-Class A.I.

Global leader in AI technology

- Top-tier proprietary AI technology
- 30+ papers presented in top AI conferences
- Large-scale medical data for R&D (N = +4 million cases)

Top Ranked in AI Competitions

Competition	Rank	Team
2015 Main Task (CLS-LOC) IMAGENET	1	Microsoft
	5	**Lunit**
	7	Google
2016 MICCAI Grand Challenge Tumor Proliferation Assessment	**1**	**Lunit**
	2	IBM
	3	Microsoft
2017 Camelyon CAMELYON17	**1**	**Lunit**
	2	Harvard Univ.
	3	Eindhoven Univ. of Tech

Global Recognition

International spotlight

- The **only Korean company** spotlighted by World Economic Forum, CB Insights

WORLD ECONOMIC FORUM
2020 / 2022
TECHNOLOGY PIONEER
GLOBAL INNOVATOR

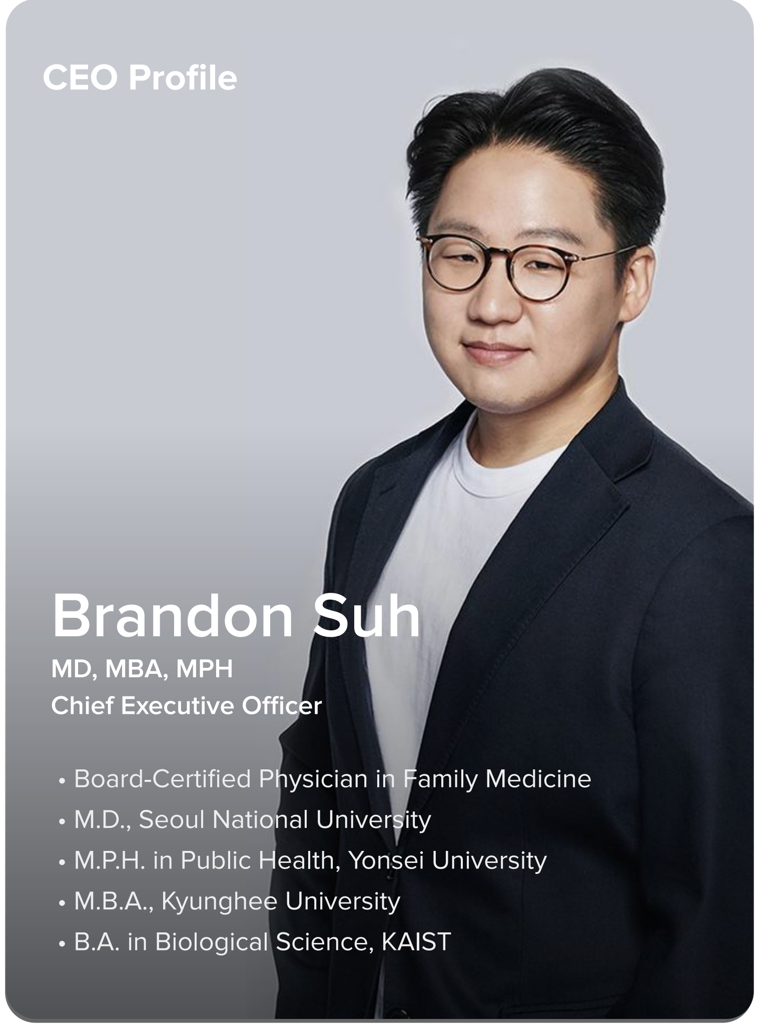
2017 AI 100 Lunit CB INSIGHTS
2017
CB Insights
AI 100

2019 Digital Health 150 Lunit CB INSIGHTS
2019 / 2020 / 2021
CB Insights
DIGITAL HEALTH 150

Forbes Newsweek
BBC FIERCE Biotech MIT Technology Review

Company Overview

Core Competence #2 Medical Expertise



CEO Profile

Brandon Suh

MD, MBA, MPH
Chief Executive Officer

- Board-Certified Physician in Family Medicine
- M.D., Seoul National University
- M.P.H. in Public Health, Yonsei University
- M.B.A., Kyunghee University
- B.A. in Biological Science, KAIST

13 Full-time Physicians at Lunit

Chanyoung Ock
Oncology

Kihwan Kim
Radiology

Taebum Lee
Pathology

Yoojoo Lim
Oncology

Sanghyup Lee
Radiology

Wonkyung Jung
Pathology

Changho Ahn
endocrinology

Eunkyung Park
Radiology

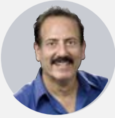
Sooick Cho
Dermatology

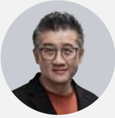
Seunghwan Shin
Rheumatology

Ambika Seth
Radiology

John Jongseok Ahn
General Physician

Renowned Scholars as Advisors


Eliot Siegel
Radiologist
Radiology IT KOL


Tony Mok
Oncologist
Board member of AstraZeneca

Linda Moy
Breast Radiologist
KOL / RSNA Vice-chair

YoungKwang Chae
Oncologist
KOL in immunotherapy

Yung-jue Bang
Oncologist
KOL in Korea

+200 Publications in Major Peer-reviewed Journals

Journal of Clinical Oncology
THE LANCET Digital Health
JAMA Oncology
JAMA Network Open
ASCO AMERICAN SOCIETY OF CLINICAL ONCOLOGY
EJC EUROPEAN JOURNAL OF CANCER
European Radiology
SCIENTIFIC REPORTS
ESMO
AACR
Radiology
RSNA
Clinical Infectious Diseases
sitc Society for Immunotherapy of Cancer
USCAP

+100 Research Partnerships

MASSACHUSETTS GENERAL HOSPITAL
Stanford MEDICINE
Northwestern Medicine
COLUMBIA
Karolinska Institutet
NHS
UCSF University of California San Francisco
UNIVERSITY OF OXFORD
BROWN
UNIVERSITY OF CAMBRIDGE

Company Overview

Core Competence

#3 Global Business

Global Talents at Lunit

Ken Nesmith
CEO of Lexent Bio (acquired by Roche/ Foundation Medicine)
MIT, Wharton School

Chris McKinney
Business Development lead at GE and TeraRecon

Michael Hreczuck
Business Development lead at Tempus and HTG Molecular

Antoine Khoury
Business Development lead at Hologic and Teleflex

Thijs Kooi
Published AI research papers in top AI journals

Sergio Pereira
Leading AI researcher in medical imaging

Wei-cheng Wang
Software Development lead at Yahoo and Foxconn

Ambika Seth
Radiologist, Clinical research for AI startups

International Colleagues (non-Koreans) 48 17%

Global Investors Back Lunit

- $73M funded by overseas investors (60% of total funding)
- First Korean medical device company invested by major US healthcare VCs (Pre-IPO funding round)
- Multiple strategic investments by industry leaders

GUARDANT | FUJIFILM | TYBOURNE
HealthQuest CAPITAL | formation 8 | 君联资本 LEGEND CAPITAL | CASDIN CAPITAL LIFE SCIENCE INVESTMENTS

International Shareholders by Company (2023.04.30)

Lunit +25%

•Top 3% of 1,600 KOSDAQ listed companies
•2nd among Healthcare Technology sectors in Korean stock market

CELLTRION	20%
SAMSUNG BIOLOGICS	10%
Listed Medical AI companies: Syntekabio, Inc. · VUNO · JLK INSPECTION · [DEEPNOID]	< 2%

Global Sales Channel through Strong Business Partnerships

50% Global market share of device partners

FUJIFILM | GE Healthcare | PHILIPS | IBM
HOLOGIC The Science of Sure | SECTRA | AGFA HealthCare

80% US Oncologists using Guardant Health products

GUARDANT

Global Big Pharma

Currently discussing research/collaboration agreement with multiple big pharmas

Company Overview

Conquer Cancer through AI | Increase cancer survival through AI-powered cancer diagnosis and treatment

AI research platform

1 Cancer diagnosis support solutions

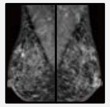
Lunit INSIGHT®

+50%

50% more patients can be screened earlier

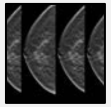
Flagship Lunit INSIGHT CXR / MMG

Chest X-Ray



Mammography

Chest CT



3D Mammo (DBT)

2 Cancer treatment support solutions

Lunit SCOPE®

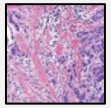
+50%

50% more patients can be eligible for immunotherapy

Flagship Lunit SCOPE IO

CT / MRI

DNA / RNA

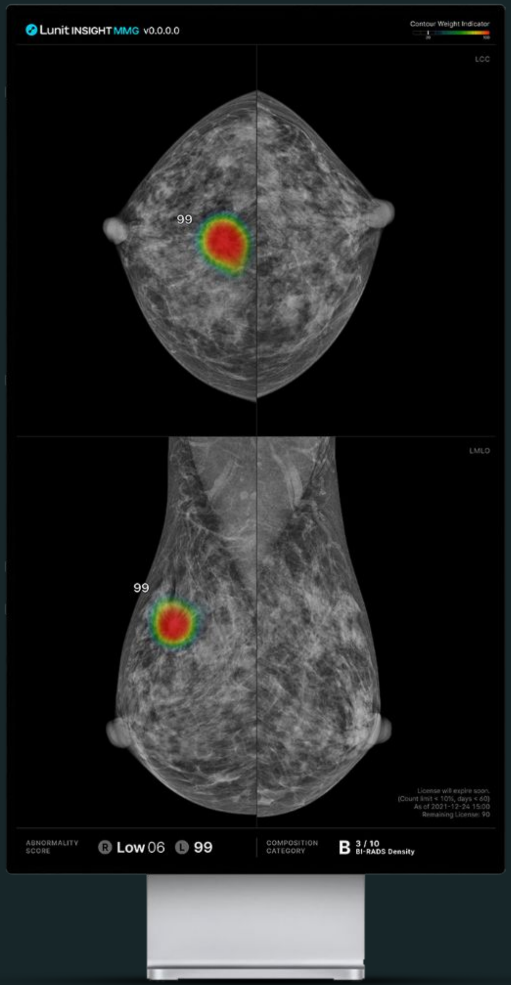


Tissue

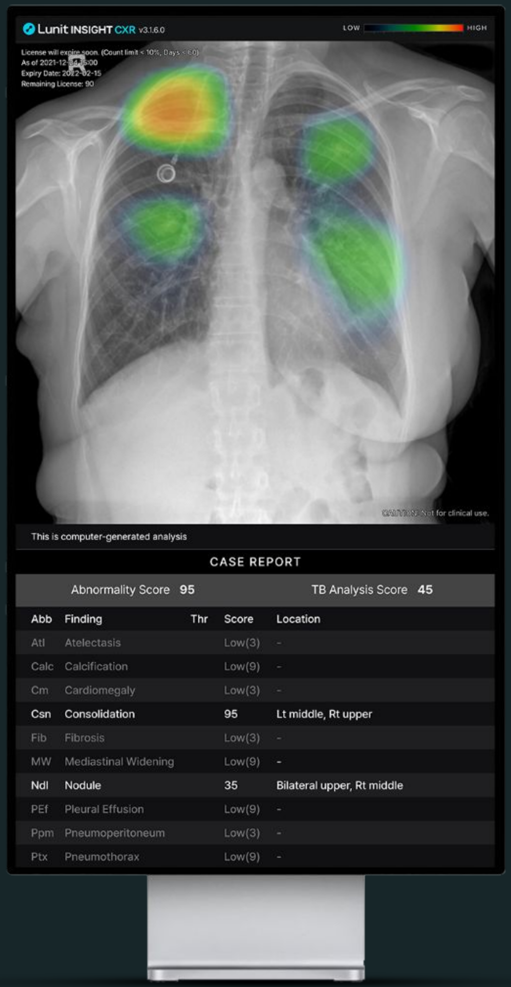
Increase Survival of Cancer Patients

Lunit INSIGHT®

2023 INVESTOR RELATIONS


Lunit INSIGHT MMG v0.0.0.0
Contour Weight Indicator
LCC
99
LMLO
99
ABNORMALITY SCORE
R Low 06
L 99
COMPOSITION CATEGORY
B 3 / 10 BI-RADS Density

Lunit INSIGHT MMG®


Lunit INSIGHT CXR v3.1.6.0
LOW
HIGH
CAUTION: Not for clinical use.

This is computer-generated analysis

CASE REPORT

Abnormality Score 95 TB Analysis Score 45

Abb	Finding	Thr	Score	Location
Atl	Atelectasis		Low(3)	-
Calc	Calcification		Low(9)	-
Cm	Cardiomegaly		Low(3)	-
Csn	Consolidation		95	Lt middle, Rt upper
Fib	Fibrosis		Low(3)	-
MW	Mediastinal Widening		Low(9)	-
Ndl	Nodule		35	Bilateral upper, Rt middle
PEf	Pleural Effusion		Low(9)	-
Ppm	Pneumoperitoneum		Low(3)	-
Ptx	Pneumothorax		Low(9)	-

Lunit INSIGHT CXR®

Lunit INSIGHT Overview

Accurate and Effective Detection of Cancer

Needs

Current limitations in cancer diagnosis/screening

Missed Cases

30%[1) 2)]

False Negative Rate [3)]

Chest X-Ray and Mammography

Unnecessary Tests

95%[2)]

False Positive Rate [4)]

Mammography

Focusing on major cancers

Lung Cancer

1st[5)]

Global incidence and mortality rate

Breast Cancer

2nd[5)]

Global incidence rate

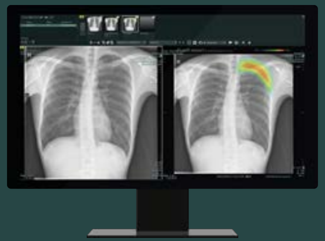
1) NLST trial, NEJM 2012
2) Breast Cancer Screening Consortium data
3)False Negative Rate : Falsely diagnosed as not cancerous
4)False Positive Rate :Falsely diagnosed as cancerous, but normal
5) SEER Cancer Statistics Review, 1975-2015

Product

Major Lung Diseases

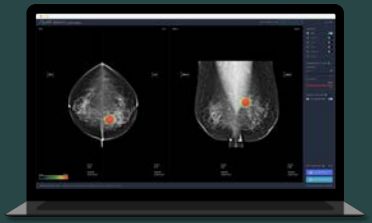
Lung Cancer, Tuberculosis, Pneumonia, etc.

Lunit INSIGHT CXR



Breast Cancer Detection

Lunit INSIGHT MMG



Effect

Increase interpretation accuracy and efficiency

Interpretation Accuracy ↑20%

Earlier Diagnosis ↑50%

Unnecessary Recalls
Mammography ↓30%

Exam Result Turnaround Time x10 faster

Lunit INSIGHT Value

Higher Reading Accuracy | Better performance than specialists, proven in major studies

Evidence

Performance

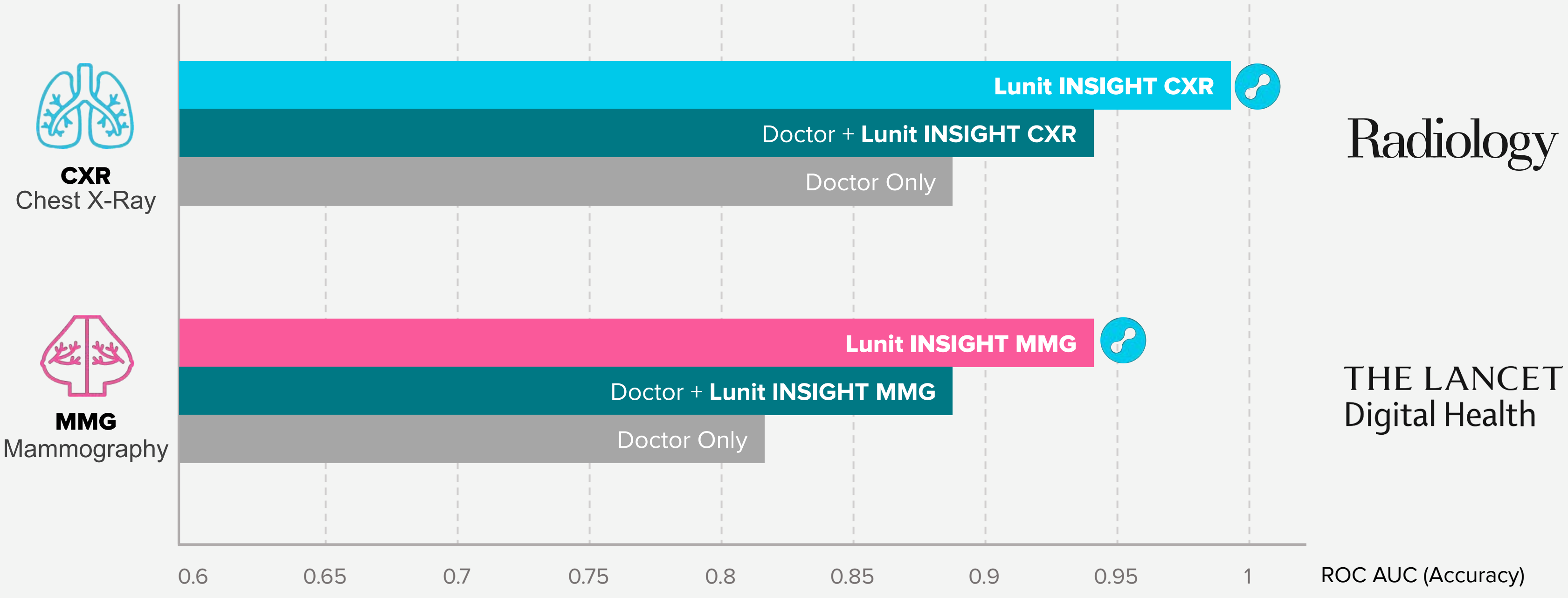
Extensively validated through studies

+150

Studies/abstracts

THE LANCET Digital Health
JAMA Oncology
Radiology
JAMA Network Open
RSNA
SCIENTIFIC REPORTS
Clinical Infectious Diseases
European Radiology
BIR The British Institute of Radiology
BMC Pulmonary Medicine
AJR
ACTA RADIOLOGICA
JTD
THE LANCET Regional Health Americas
EUROPEAN RESPIRATORY journal FLAGSHIP SCIENTIFIC JOURNAL OF ERS

Clinically proven to show excellence in medical image analysis



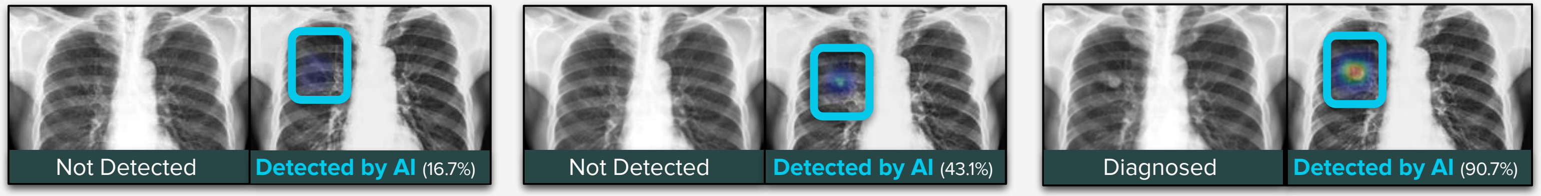
Lunit INSIGHT Value

Earlier Diagnosis | Higher reading accuracy leads to earlier diagnosis of cancer

When Using Lunit INSIGHT

50% of lung cancer patients can be diagnosed earlier when analyzed by Lunit INSIGHT CXR

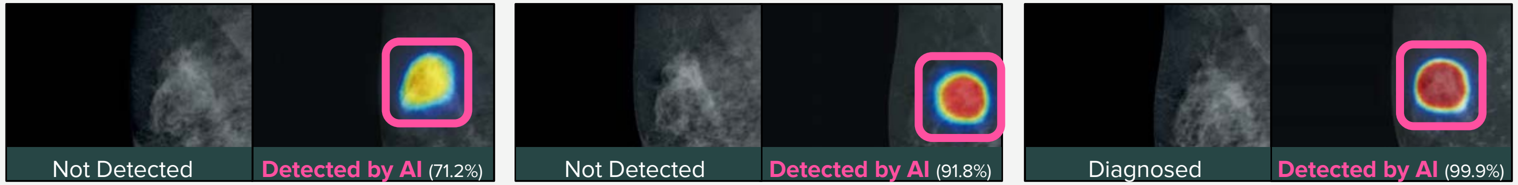
Case) 2013 → 2014 → 2016


Not Detected
Detected by AI (16.7%)
Not Detected
Detected by AI (43.1%)
Diagnosed
Detected by AI (90.7%)

54-year-old male: **AI found a lung cancer that was missed 3 years ago**

40% of breast cancer patients can be diagnosed earlier when analyzed by Lunit INSIGHT MMG

Case) 2008 → 2009 → 2010


Not Detected
Detected by AI (71.2%)
Not Detected
Detected by AI (91.8%)
Diagnosed
Detected by AI (99.9%)

59-year-old female: **AI found a breast cancer that was missed 2 years ago**

Impact of Earlier Diagnosis

Significance of Early Diagnosis in Lung Cancer

4.3x Survival Increase

5-Year-Survival Diagnosed Stage 1,2	5-Year-Survival Diagnosed Stage 3, 4
73%	18%

Reference: AJCC 8th Edition

Significance of Early Diagnosis in Breast Cancer

1.4x Survival Increase

5-Year-Survival Diagnosed Stage 1,2	5-Year-Survival Diagnosed Stage 3, 4
96%	65%

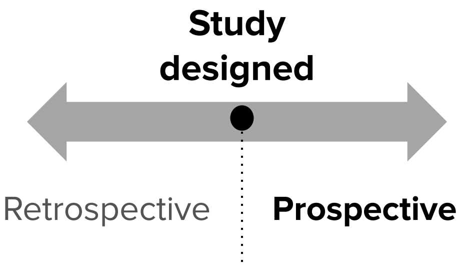
Reference: AJCC 8th Edition

Lunit INSIGHT Value

Real World Evidence | Building solid evidence through prospective studies

Study Method

What is prospective study?



Outcome is measured after the baseline state of the subjects is determined and controlled intervention applied.

Reliability ↑	Data quality ↑
Bias ↓	Recall errors ↓

Higher possibility to receive **reimbursement** if backed by prospective studies

Lunit INSIGHT CXR

Flagship prospective CXR study

10,476 Patients with chest X-Ray

RCT study on 'lung nodule detection rate' at Seoul National University Hospital (Korea)

Outcome	Detection rate of actionable lung nodules	Detection rate of malignant lung nodules
A Group (n=5238) Radiologist + AI	31 (0.59%)	8 (0.15%)
B Group (n=5238) Radiologist only	13 (0.25%)	0 (0.0%)

Radiology

Large-scale Prospective RCT*

***Randomized Controlled Trial**
: Research method in which subjects are randomly divided into control and experimental groups for comparison

Lunit INSIGHT MMG

Flagship prospective MMG study

55,579 women screened for breast cancer

Study on 'Double Reading' by Karolinska Institutet (Sweden)

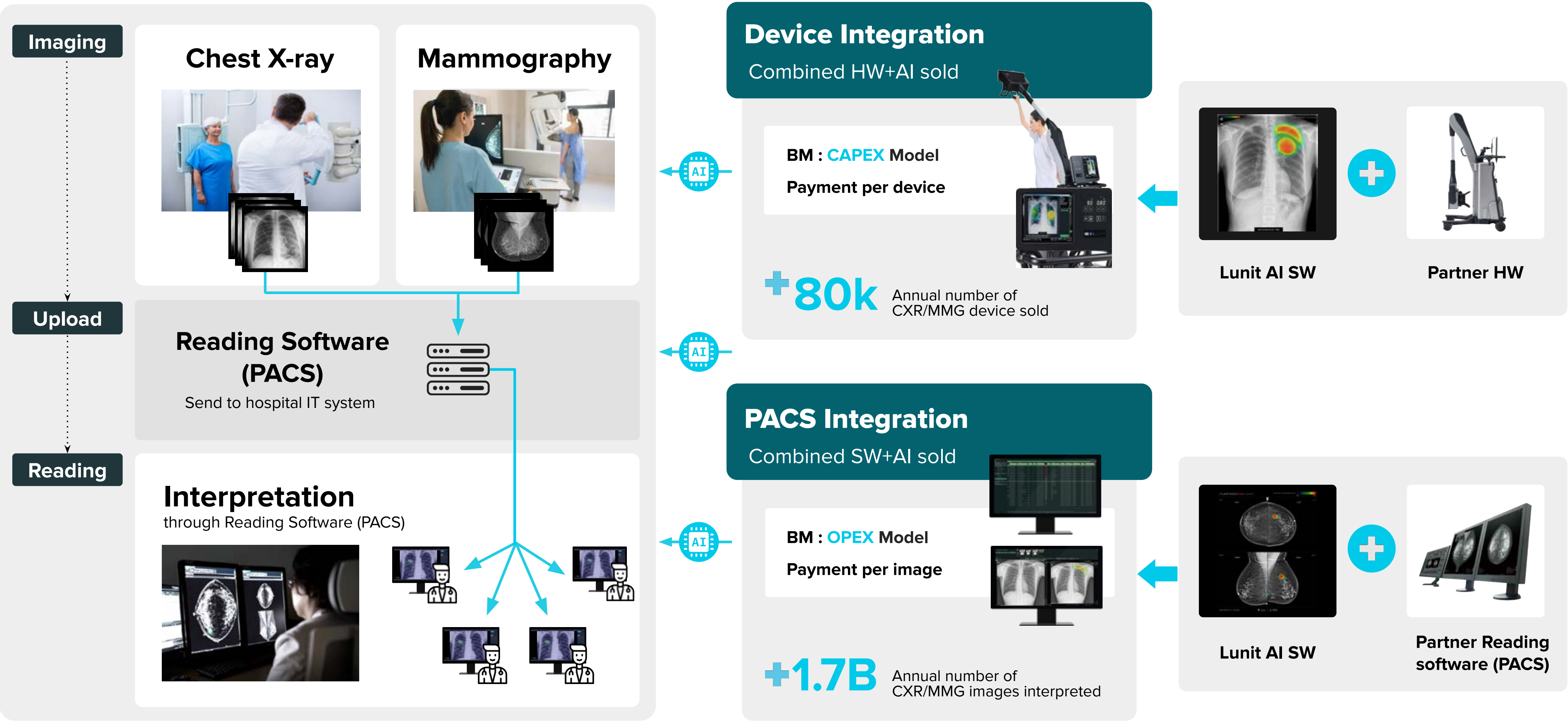
Outcome	Detection rate of cancer per 1,000 women	Recall rate per 1,000 women
1 Radiologist + Lunit INSIGHT MMG	4.3	28
2 Radiologists	4.1	29.3
Lunit INSIGHT MMG	4.1	15.5

Under submission in major journal

Large-scale Prospective Study

Lunit INSIGHT Business Strategy

Distribution through Integration into Imaging Platform



Imaging

Chest X-ray

Mammography

Upload

Reading Software (PACS)

Send to hospital IT system

Reading

Interpretation

through Reading Software (PACS)

Device Integration

Combined HW+AI sold

BM : CAPEX Model

Payment per device

+80k Annual number of CXR/MMG device sold

Lunit AI SW + **Partner HW**

PACS Integration

Combined SW+AI sold

BM : OPEX Model

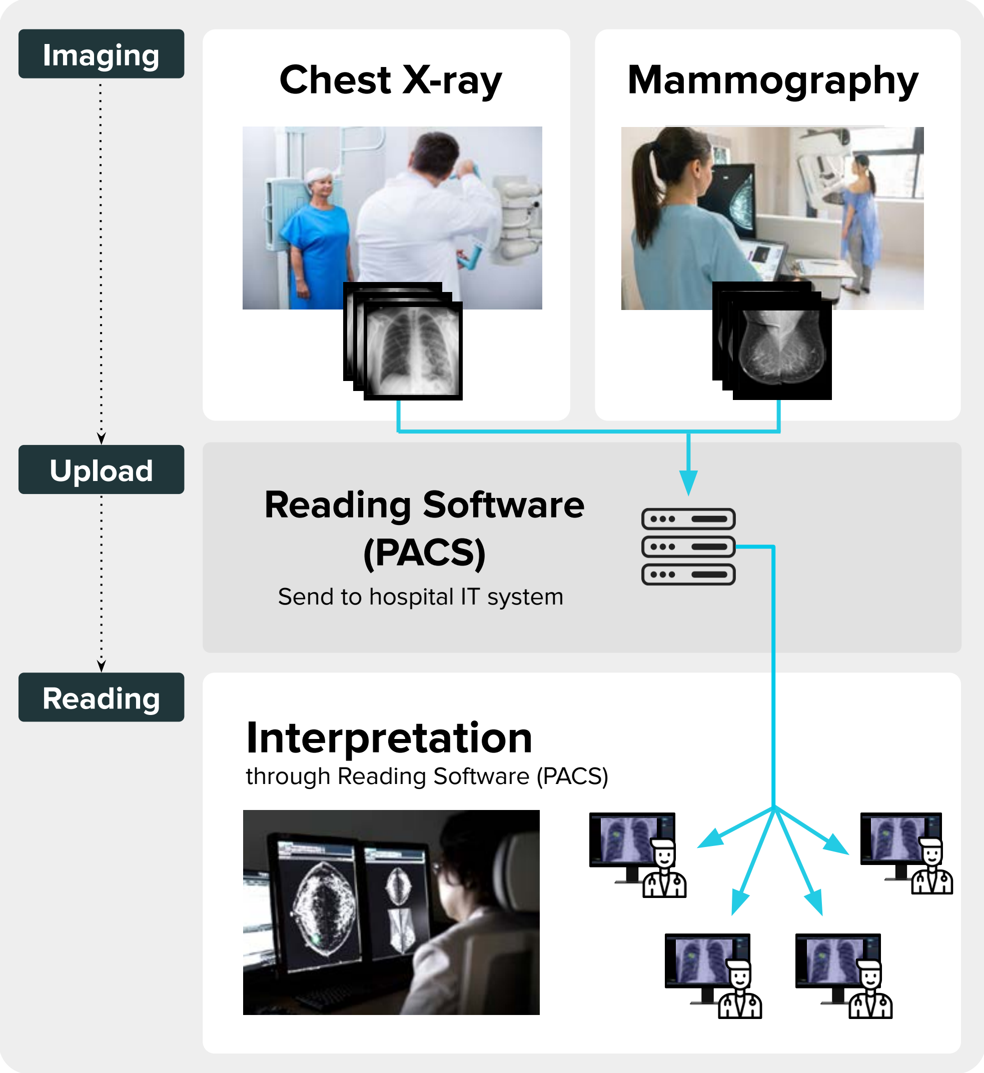
Payment per image

+1.7B Annual number of CXR/MMG images interpreted

Lunit AI SW + **Partner Reading software (PACS)**

Lunit INSIGHT Business Strategy

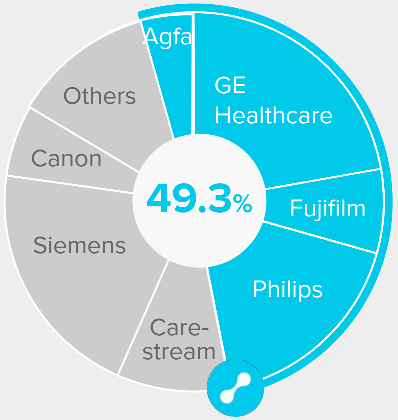
Scaling out through Global Partnerships


Imaging
Chest X-ray
Mammography
Upload
Reading Software (PACS)
Send to hospital IT system
Reading
Interpretation
through Reading Software (PACS)

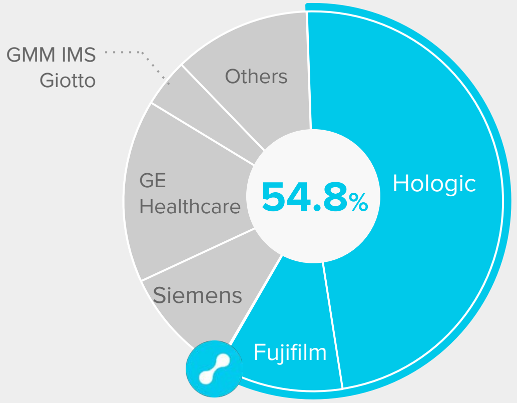
Lunit's Major Distribution Channel

■ Contract Signed □ Prospective Partners

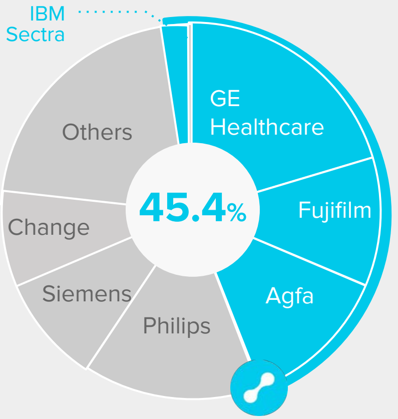
Global X-Ray Device Market 1)



Global Mammography Market 2)



Global Reading Software (PACS) Market 3)



1) Diagnostic Imaging Market 2021 by markets and markets
2) Breast Imaging report – 2021 Edition by Signify Research
3) Healthcare IT Value By Geography, Global, 2015-2025 by Global data

GE Healthcare FUJIFILM
PHILIPS HOLOGIC The Science of Sure
AGFA HealthCare IBM SECTRA

Lunit INSIGHT Superior Performance

Key Success Factor: Proven to Be Best-in-Class

Accuracy

Superior Performance

JAMA Oncology

Salim, et al. JAMA Oncol. 2020 Aug 27.

IF 24.799[1]

Karolinska Institutet

Comparing 3 Commercial Mammography AI

Retrospective analysis of 8 years of mammography screening

Compared AI screening performance with data from 739 breast cancer-diagnosed women and 112,924 healthy women

	Lunit	Company A	Company B
AI	Lunit INSIGHT MMG	Algorithm A	Algorithm B
Sensitivity	**81.9%**	67.0%	67.4%
Accuracy (ROC AUC)	**95.6%**	92.2%	92.0%

[1] Impact factor, Top 7 among Oncology Journals

✓ **Proven superior performance compared to competitors**

Research

Robust Research (SCIE Journals[2])

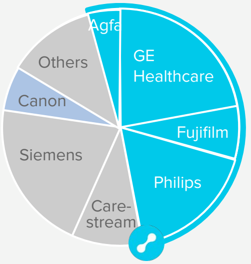
Modality	Company (Country)		# of Journals
Chest X-Ray	**Lunit**	🇰🇷	**39**
	Qure.ai	🇮🇩	14
	Oxipit	🇱🇹	1
	Zebra	🇮🇱	0
	Others (>10)		None
Mammography	**Lunit**		**19**
	ScreenPoint	🇳🇱	14
	DeepHealth	🇺🇸	2
	Zebra	🇮🇱	1
	Others (>10)		None

[2] SCIE(Science Citation Index Expanded): Citation index originally produced by the Institute for Scientific Information and created by Eugene Garfield

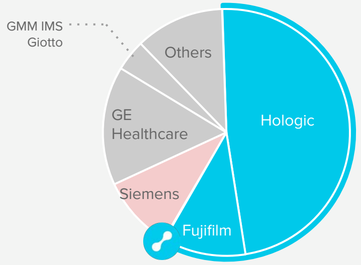
✓ **Robust research** with strong clinical evidence in peer-reviewed journals

Partnership

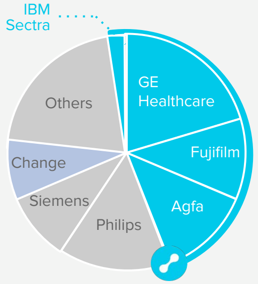
Larger Market Access



Global X-Ray Device Market



Global Mammography Market



Global Reading Software (PACS) Market

🟦 Lunit(Partnership Signed) 🟦 Zebra Medical Vision 🟥 Screenpoint

✓ **Access to 50% of market share** through global partnership

Lunit INSIGHT Business

Current Commercialization Status

Usage

Number of paying sites worldwide [1]

+2,000

Global Customers	84%
Retention Rate	+95%
Lunit Users among Top 10 Hospitals in Korea [2]	7
Chest X-Ray exams in Korea[3] Analyzed by Lunit INSIGHT CXR 2021	10%
Lunit INSIGHT MMG Users among 45 Large Hospitals in Korea	42%

Partner Testimonials

“First AI company collaboration for our x-ray business”

— General Manager K* *

GE Healthcare

“This is actually **out first AI company collaboration for our x-ray business. The offering will be available on all of GE digital, fixed, and mobile, and even fluoroscopy.** Leveraging the long-term established expertise, that GE has on x-ray equipment in combination with Lunit’s technology will help to keep up with the customer needs, care deeply about patients and diagnosing physicians or radiologists.”

“Felt very high customer satisfaction”

— Global Marketing Manager M* *

FUJIFILM

“In Japan especially, many of the elder people cannot move from home to the clinic to take x-ray. Our x-ray with Lunit AI can visit to take x-ray immediately at home, so it is a significant difference. After we used Lunit AI in the market, I didn’t have any complaints. From Fujifilm’s standpoint, whatever AI lunit made has a very high quality, so **we would want to implement it in our x-ray system or PACS system.** Customers have already started to use AI and expect more support.”

“Lunit has both strong clinical record and national scalability”

— Global Software Product Manager P* *

AGFA HealthCare

“**Lunit has a strong clinical validation track record and is registered in Europe and also more than 19 countries, making it an excellent partner for developing solutions that bring our customers intelligent and definitive answers to their daily needs.** We believe that the integration of Lunit’s AI in Agfa’s advanced medical imaging workstation will help facilitate more effective clinical workflows in various hospital situations.”

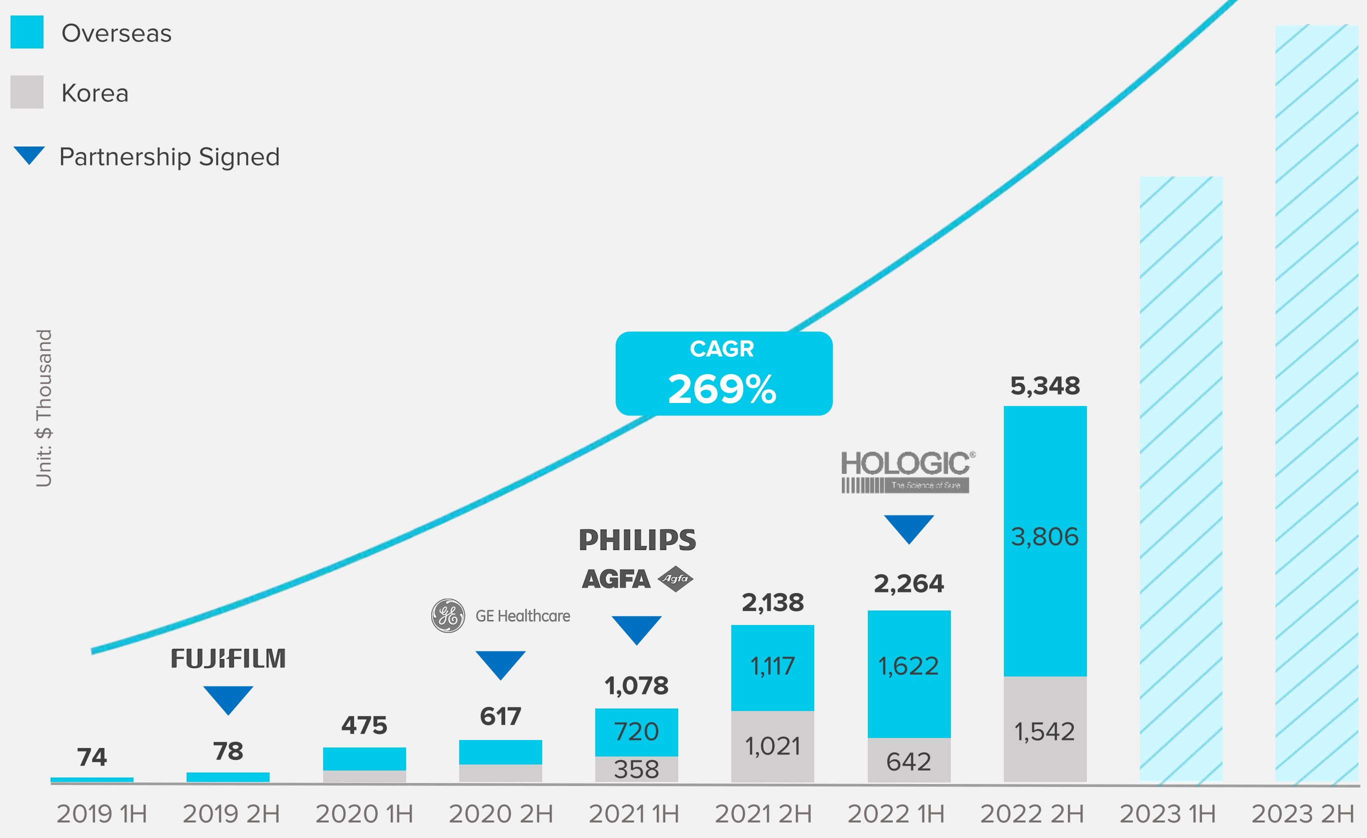
[1] Excludes demo and research use; only commercial sales
[2] Newsweek. World’s Best Hospitals – South Korea. 2020;
[3] Source: KOSTAT.go.kr Appx. 40M Chest X-ray exams performed annually in Korea

Lunit INSIGHT Business

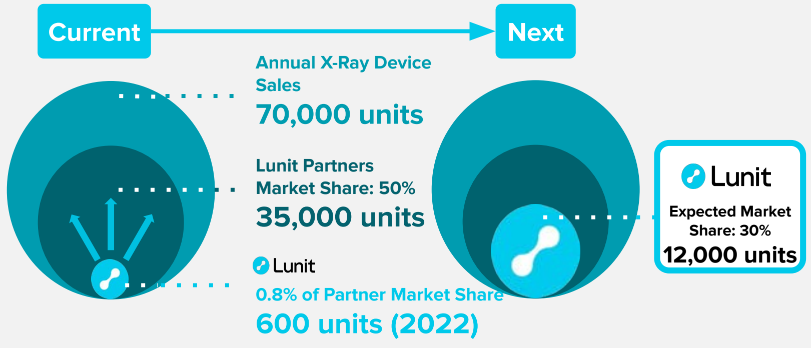
Exponential Revenue Growth Expected to Continue

Scaling out business and sales as partners and markets are activated sequentially

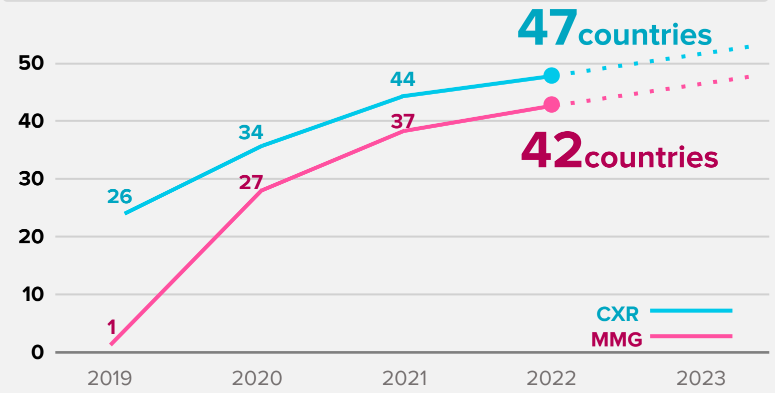
Lunit INSIGHT Revenue Trend



Much Room to Grow through Partnership Channel


Current
Next
Annual X-Ray Device Sales
70,000 units
Lunit Partners Market Share: 50%
35,000 units
Lunit
0.8% of Partner Market Share
600 units (2022)
Lunit
Expected Market Share: 30%
12,000 units

Much Room to Grow through Market Expansions



Lunit INSIGHT Business

Next Step Becoming global standard of care by B2G expansion and successful reimbursement

B to G **National Cancer Screening Programs**

Reimbursement

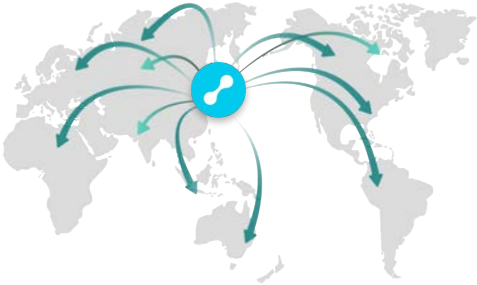
First Case

Selected into Australia's National Breast Cancer Screening Program

BSNSW (BreastScreen New South Wales): A free national breast cancer screening program in NSW (MMG every 2 years to women over 40). The first case globally in which an AI-based solution is being applied in a national cancer screening program.

Expansion

+10 countries in discussion, B2G business expansion expected in near-future



Europe

AI can reduce burden caused by Double Reading in Europe

Outcome	Detection rate of cancer per 1,000 women	Recall rate per 1,000 women
1 Radiologist + Lunit INSIGHT MMG	4.3	28
2 Radiologists	4.1	29.3
Lunit INSIGHT MMG	4.1	15.5

AI + one reader outperforms Double Reading

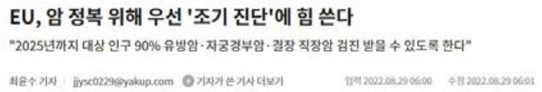
Detection Rate of Cancer ▲ / Recall Rate ▼

↓

Clinical evidence to replace one reader of double reading system (unique in Europe)

↓

Possibility of reimbursement in Europe ▲ ▲



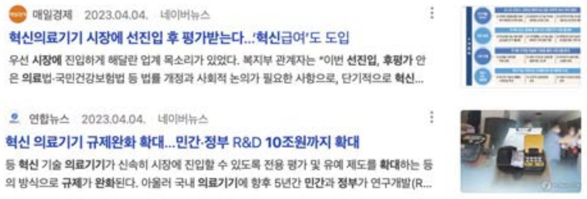
EU, 암 정복 위해 우선 '조기 진단'에 힘 쓴다

"2025년까지 대상 인구 90% 유방암 · 자궁경부암 · 결장 직장암 검진 받을 수 있도록 한다"

최윤수 기자 | jjysc0229@yakup.com 기자가 쓴 기사 더보기 입력 2022.08.29 06:00 수정 2022.08.29 06:01

Korea

Government Regulation ▼ / Support ▲



매일경제 2023.04.04. 네이버뉴스

혁신의료기기 시장에 선진입 후 평가받는다...'혁신급여'도 도입

우선 시장에 진입하게 해달란 업계 목소리가 있었다. 복지부 관계자는 "이번 선진입, 후평가 안은 의료법·국민건강보험법 등 법률 개정과 사회적 논의가 필요한 사항으로, 단기적으로 혁신...

연합뉴스 2023.04.04. 네이버뉴스

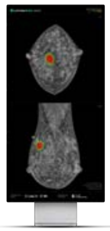
혁신 의료기기 규제완화 확대...민간·정부 R&D 10조원까지 확대

등 혁신 기술 의료기기가 신속히 시장에 진입할 수 있도록 전용 평가 및 유예 제도를 확대하는 등의 방식으로 규제가 완화된다. 아울러 국내 의료기기에 향후 5년간 민간과 정부가 연구개발(R...

Lunit INSIGHT CXR

2020.09

Selected as an Innovative Medical Device



Lunit INSIGHT MMG

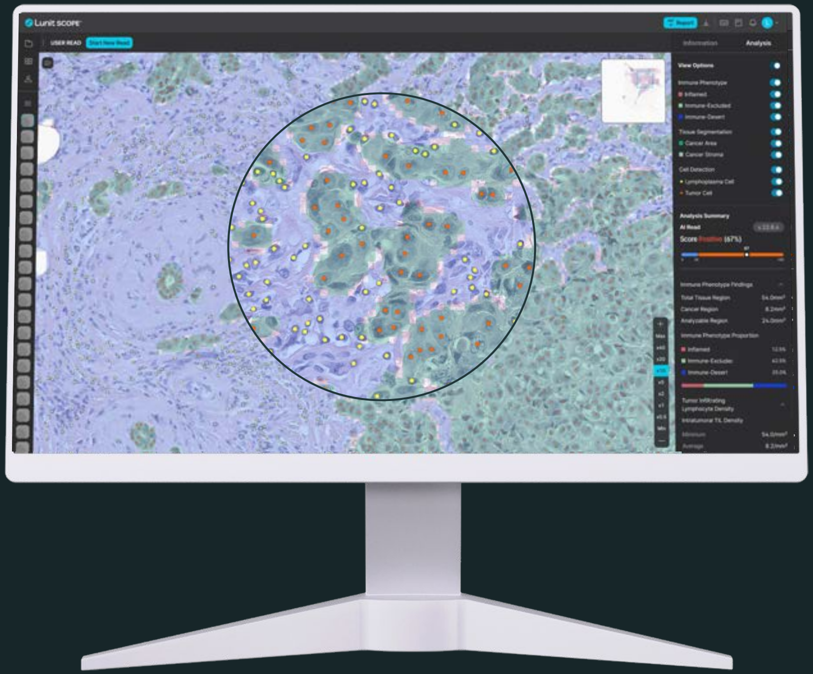
2021.09

Selected as an Innovative Medical Device

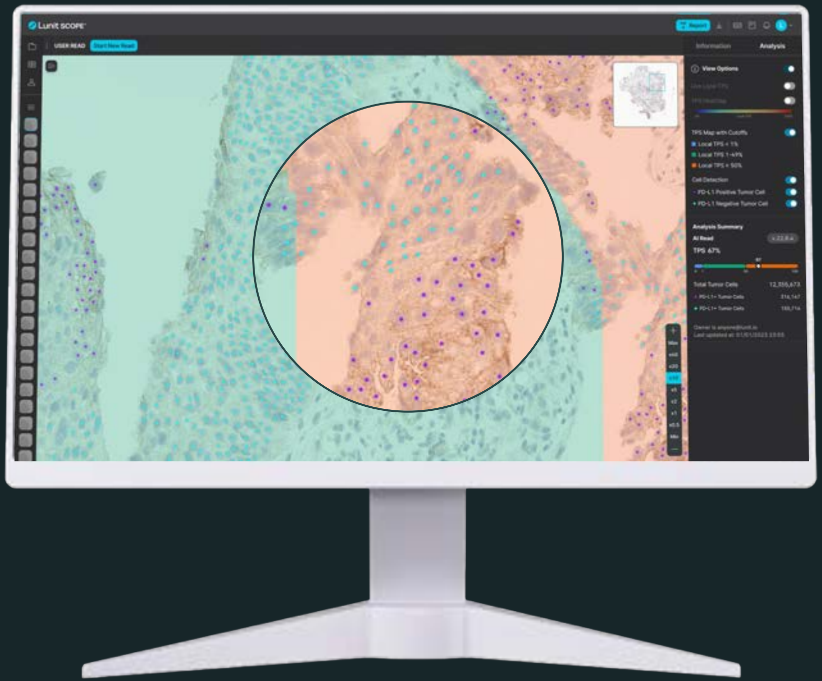
Possibility of reimbursement in Korea ▲ ▲

Lunit SCOPE®

2023 INVESTOR RELATIONS



Lunit SCOPE IO



Lunit SCOPE uIHC

Lunit SCOPE Development

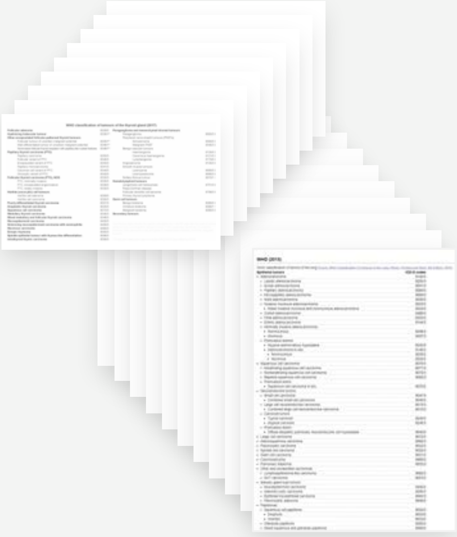
Personalized Approach Is Key to Cancer Treatment

High Complexity in Cancer

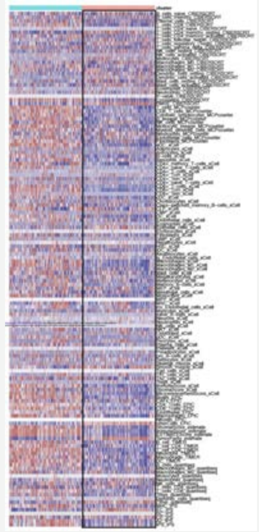
Even cancers in the same organ have different biological characteristics and prognoses.

Morphological Type	Mutation Type	Tumor Heterogeneity
1,000+	1,000+	10+

WHO's Morphological Classification

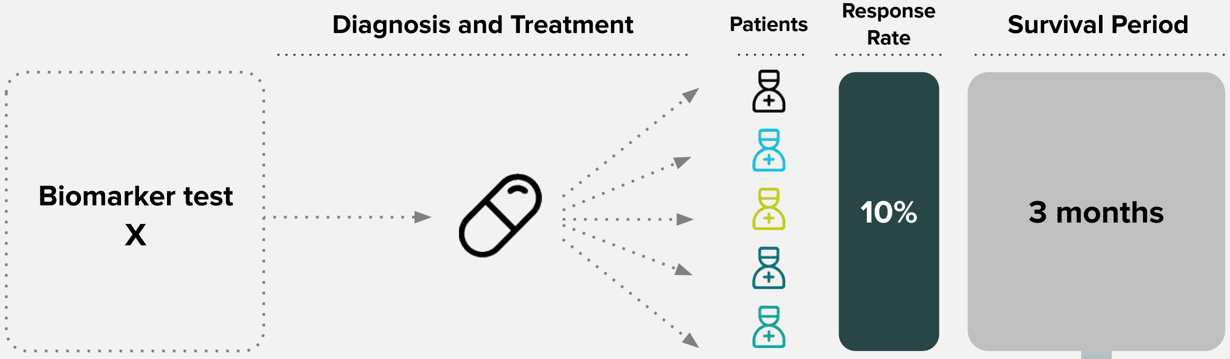


Gene Mutations Causing Cancer

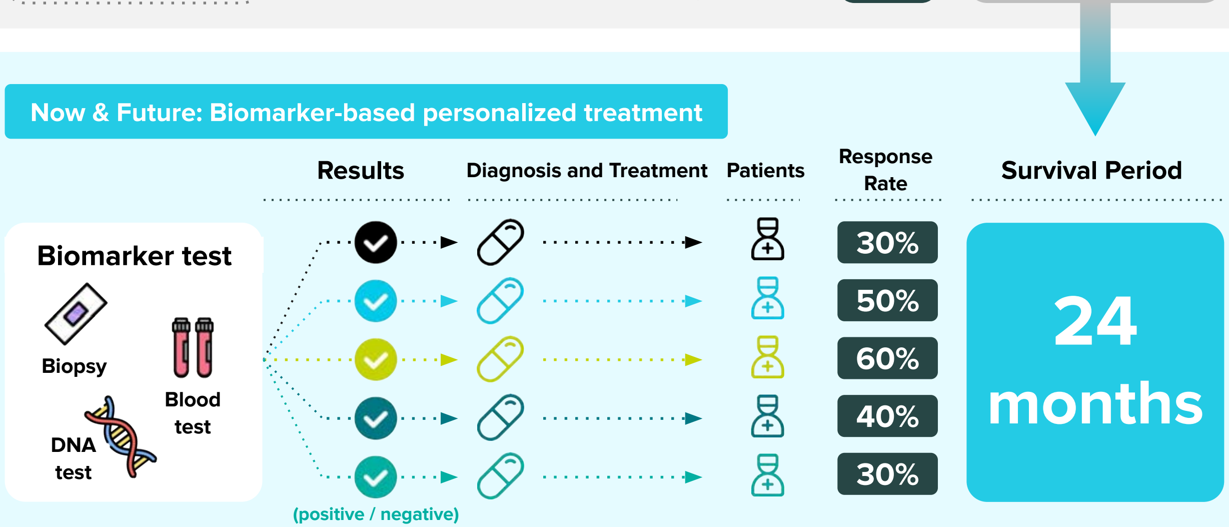


KEY: Personalized Treatment by Biomarkers

Traditional: One general treatment for all cancer patients


Diagnosis and Treatment
Patients
Response Rate
Survival Period
Biomarker test
X
10%
3 months

Now & Future: Biomarker-based personalized treatment


Results
Diagnosis and Treatment
Patients
Response Rate
Survival Period
Biomarker test
Biopsy
Blood test
DNA test
(positive / negative)
30%
50%
60%
40%
30%
24 months

Lunit SCOPE Development

Lunit SCOPE: Novel Biomarker to Immunotherapy

1st generation (1940 -)

Chemotherapy
Biomarker test X

Detects and attacks fast-growing cells recognized as cancer cells

2nd generation (2000 -)

Targeted Therapy
Biomarker test O = Genetic test

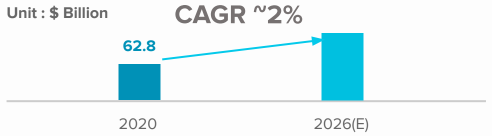
Directly targets certain DNA mutations

Biomarker CDx

EGFR KRAS BRAF BRCA MET
ALK ROS1 ER/PR KI67 HER2 •••

Total +20

Targeted Therapy Market



Source: : Targeted Therapeutics Market by Transparency Market Research

Saturated Market

3rd generation (2015 -)

Immunotherapy
Biomarker test O = Analyzing tissue cells

Activates immune cells to kill cancer cells

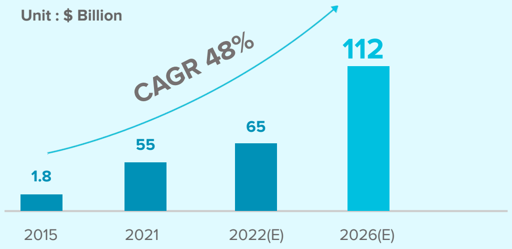
Not related to DNA mutations

Biomarker CDx

PD-L1 (2015~) MSI (2017~) TMB (2020~)

Total 3

Immunotherapy



Source: Disclosures from pharmas, The Business Research Company

Emerging Market

Optimized target for Lunit with
large-scale AI image processing technology

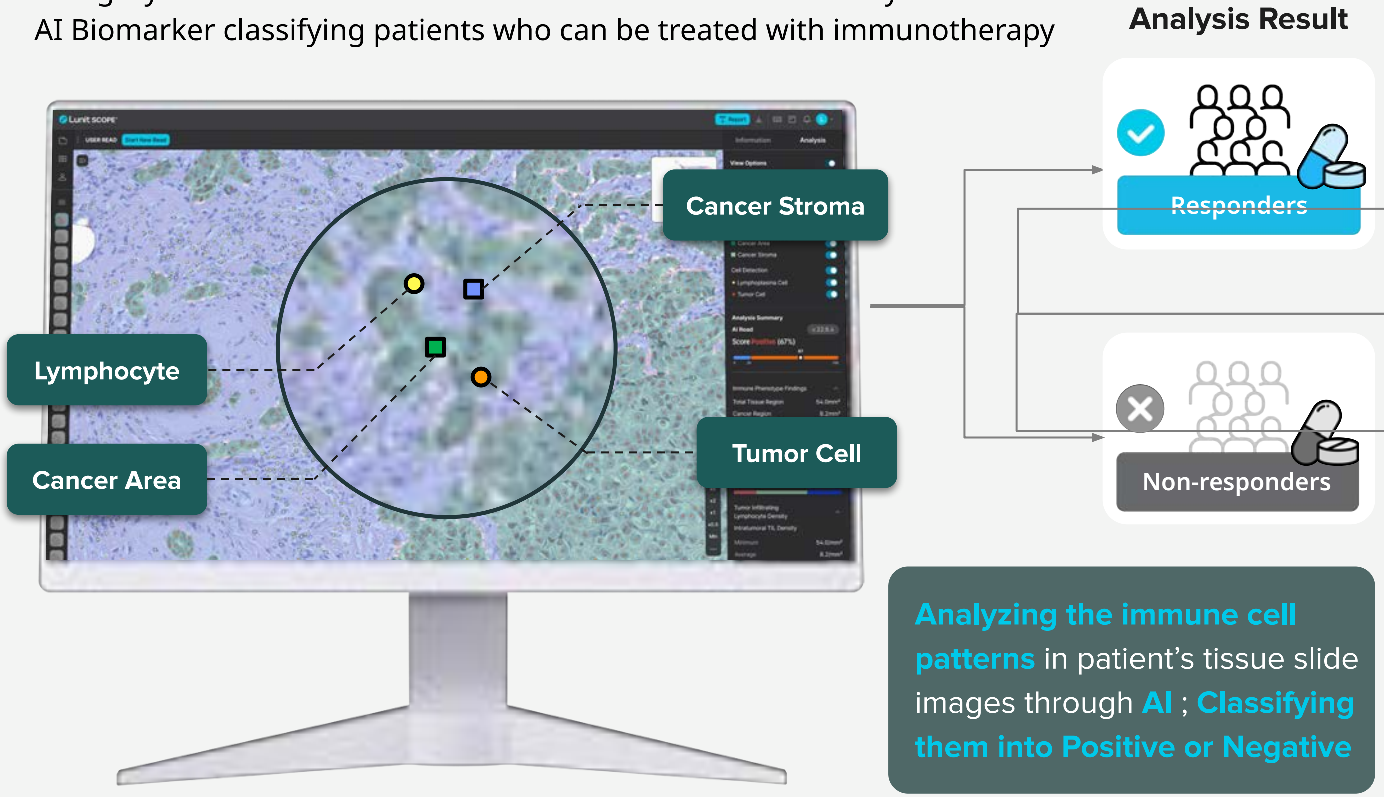
Lunit SCOPE Description

Next Generation AI-powered Biomarker

Flagship : Lunit SCOPE IO

Lunit SCOPE IO®

Category : Biomarker based on tumor microenvironment analysis
AI Biomarker classifying patients who can be treated with immunotherapy

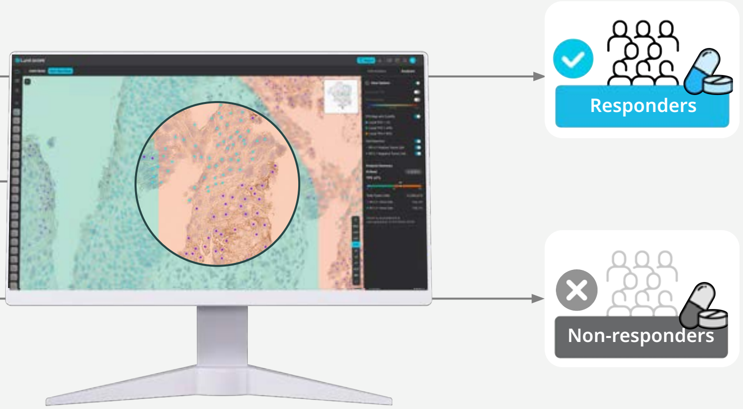

Analysis Result
Cancer Stroma
Lymphocyte
Cancer Area
Tumor Cell
Responders
Non-responders

Analyzing the immune cell patterns in patient's tissue slide images through **AI** ; **Classifying them into Positive or Negative**

Others : Lunit SCOPE Next

Lunit SCOPE Universal IHC

Category : Biomarker to quantify protein expression and predict response
AI Biomarker classifying patients who can be treated with ADC


Responders
Non-responders

- Lunit SCOPE PD-L1
- Lunit SCOPE HER2
- Lunit SCOPE ERPR

⋮

- Lunit SCOPE XXX (Later)

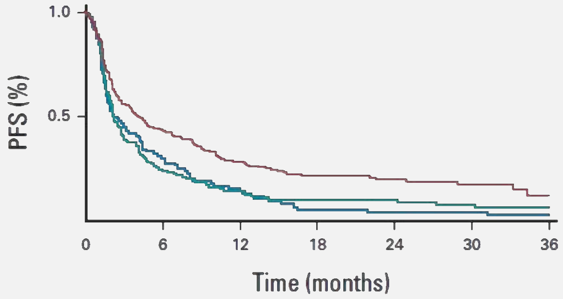
Lunit SCOPE Research

Accurately Identifies Patients Responsive to Immunotherapy

High Prediction of Response to Immunotherapy

SCOPE Classification	Immune Phenotype	mPFS (months)	HR (95% CI)
Positive	Inflamed	4.1	Ref
Negative	Excluded	2.2	1.52
	Desert	2.4	1.58

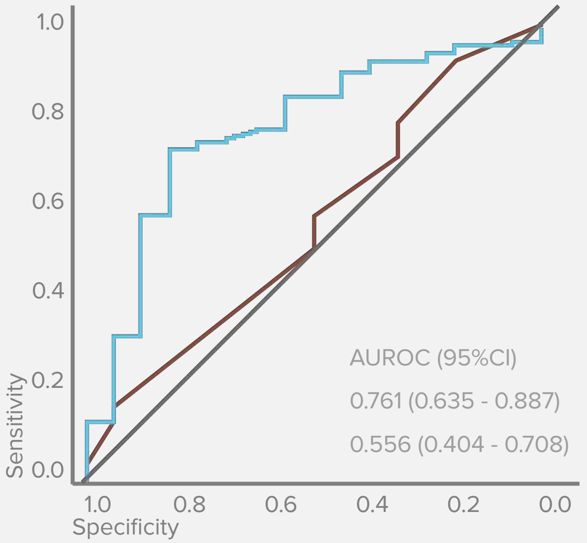
PFS	No.	ORR (%)	mPFS (95% CI)	HR (95% CI)	p
Inflamed	288	26.8	4.1 (2.8 to 6.2)	NA	NA
Immune-excluded	192	11.5	2.2 (2.0 to 2.8)	1.52 (1.23 to 1.88)	9.6×10^{-5}
Immune-desert	98	11.2	2.4 (1.7 to 4.2)	1.58 (1.23 to 2.03)	4.1×10^{-4}



Journal of Clinical Oncology®

Accuracy Comparison Versus PD-L1 (already used biomarker)

PD-L1	Lunit SCOPE IO®
55%	76%



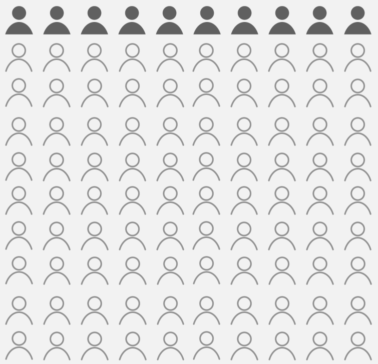
Journal of Clinical Oncology®

Patient Selection Comparison Versus TMB/MSI (already used biomarker)

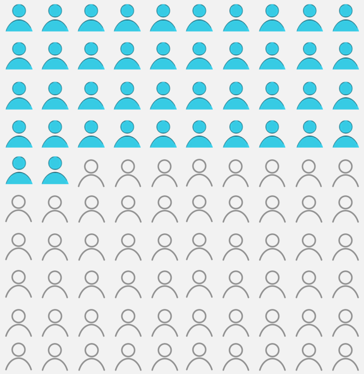
TMB/MSI-High	Lunit SCOPE IO®
10%	42%

Analysis on PD-L1(-) patients who would not be eligible for immunotherapy

10% of patients are identified to respond to immunotherapy



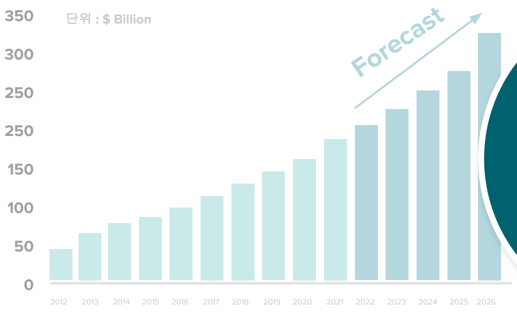
42% of patients are identified to respond to immunotherapy



ASCO

Lunit SCOPE Market

Use of Biomarkers Is Standard in Cancer Medical Treatment



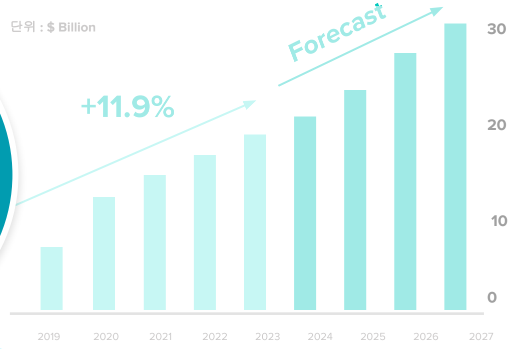
Source: IQVIA. 2021-2026 Global size and CAGR forecast of Anticancer drugs

Market Size
+$300B
CAGR 12%

Pharmaceutical Companies
Cancer Drugs

Cancer Diagnostics Companies
Biomarkers

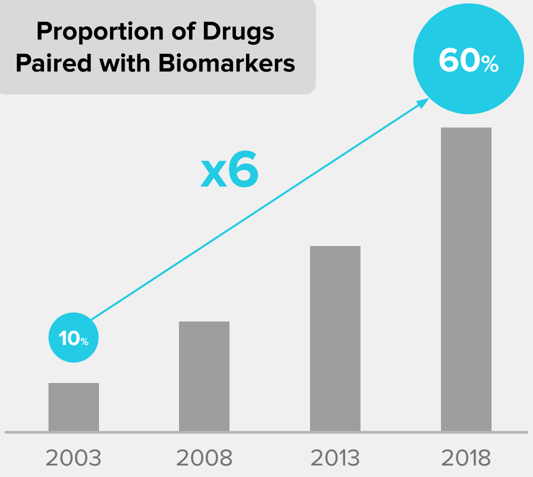
Market Size
+$27B
CAGR 11.9%



출처: Allied Market Research. Cancer Biomarkers Market. 2020.

Trend in Biomarker (CDx) Use

Proportion of Drugs Paired with Biomarkers



Source Vadas et al, J Precision Medicine

Global Cancer Drugs (solid-tumor)

Revenue Ranking

Unit: B$

No	Drug	Pharma	Revenue 2022	FDA Approved Biomarker (CDx)
1	Keytruda	Merck	20.94	PD-L1, MSI, TMB
2	Opdivo	BMS	8.25	PD-L1
3	Tagrisso	Astra-Zeneca	5.44	EGFR
4	Ibrance	Pfizer	5.12	ER/PR
5	Perjeta	Roche	4.30	HER2
6	Tecentriq	Roche	3.91	PD-L1
7	Imfinzi	Astra-Zeneca	2.78	PD-L1
8	Lynparza	Astra-Zeneca	2.64	BRCA
9	Herceptin	Roche	2.25	HER2
10	Avastin	Roche	2.23	-

Successful CDx Cases

FDA APPROVED	Case 1	Case 2	Case 3
Biomarker	**EGFR**	**HER2**	**TMB**
CDx Product	Roche	FOUNDATION MEDICINE	FOUNDATION MEDICINE
Pairied Drugs	AstraZeneca	Roche	MERCK

Lunit SCOPE Market

Why Pharma Actively Use Biomarkers (CDx)

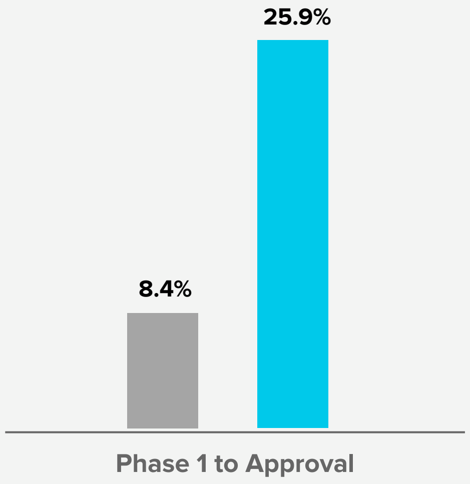
Use of biomarkers is key to successful clinical trials

Biomarker leads to 3x higher success rate

Higher ↑

Chance of Approval

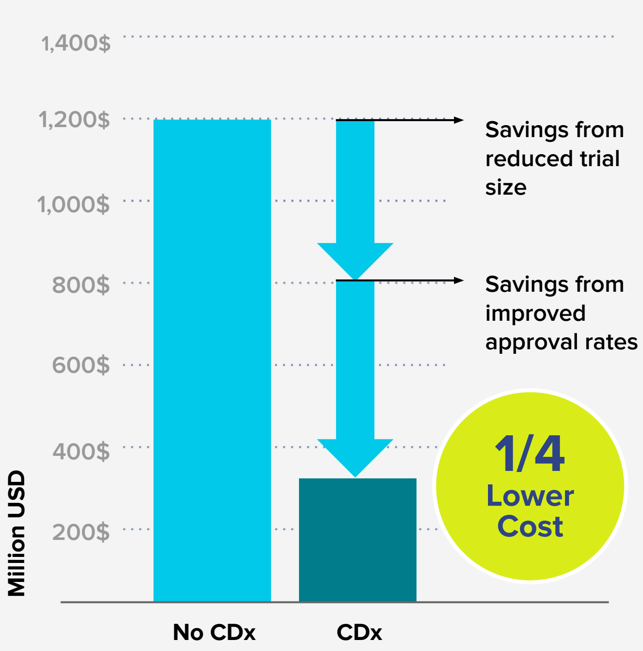
3x Success Rate



Source: ARK investment Management LLC

Biomarker leads to ¼ lower cost for clinical trials

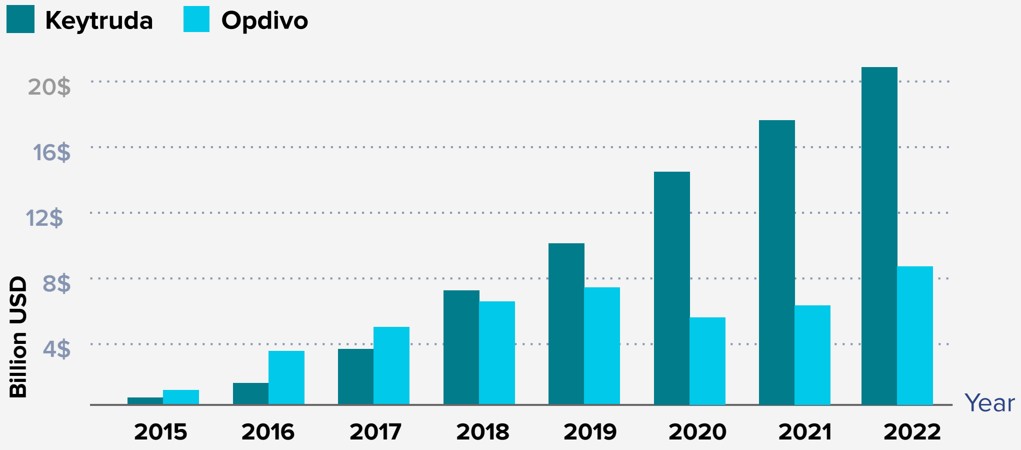
Cost of each anticancer drug



Source: ARK investment Management LLC

Biomarker leads to more frequent use of paired drugs and sales performance

How MSD's Keytruda rapidly surpassed BMS's Opdivo and became the No.1 cancer drug globally



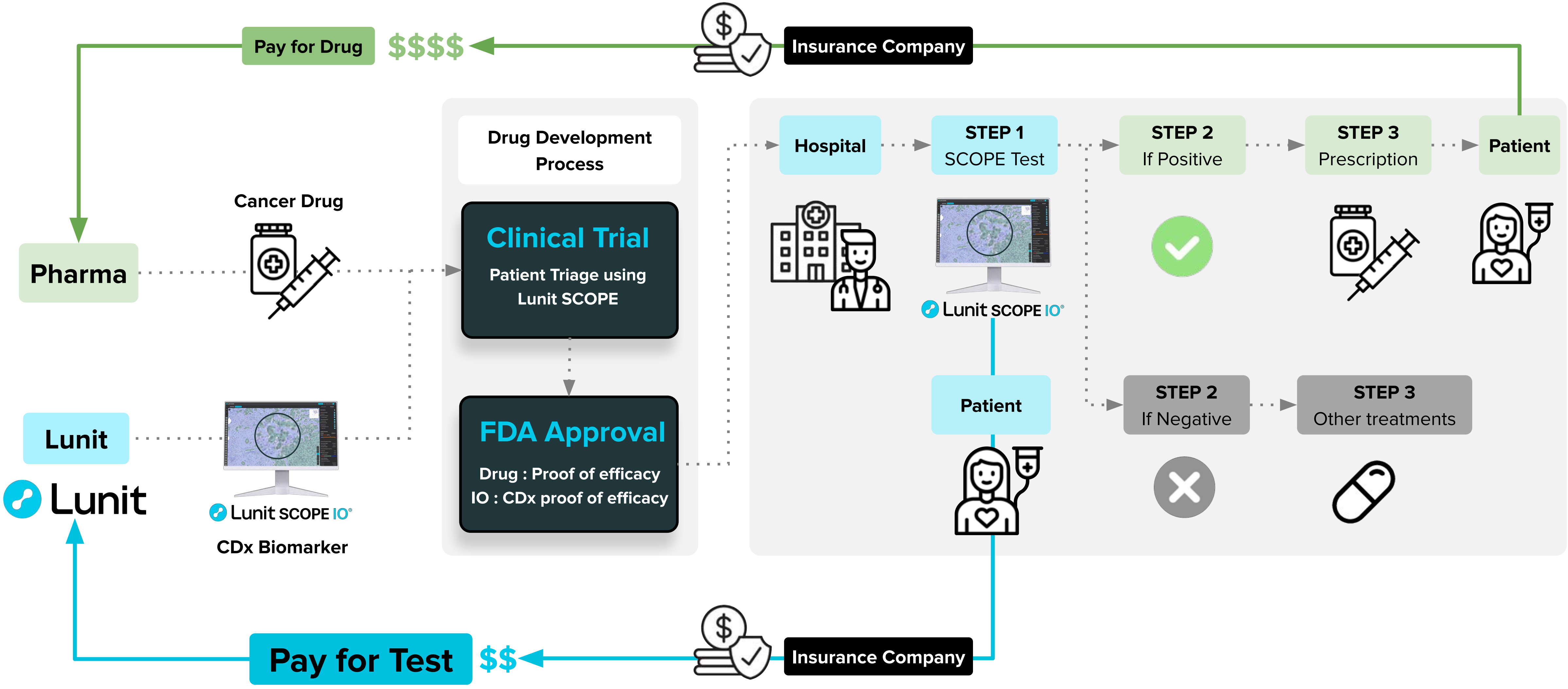
75% **of physicians prefer Keytruda because it helps identify how well a patient is likely to respond (Survey by ASCO)**

↓

The reason why drugs with biomarker/CDx are best-selling despite narrower indication

Business Model

Paired with pharma’s drug, generating high sales by active testing before treatment



Insurance Company

Pay for Drug

$$$$

Pharma

Cancer Drug

Lunit

Lunit SCOPE IO

CDx Biomarker

Drug Development Process

Clinical Trial

Patient Triage using Lunit SCOPE

FDA Approval

Drug : Proof of efficacy
IO : CDx proof of efficacy

Hospital

STEP 1 SCOPE Test

Lunit SCOPE IO

STEP 2 If Positive

STEP 3 Prescription

Patient

Patient

STEP 2 If Negative

STEP 3 Other treatments

Insurance Company

Pay for Test

$$

When approved by FDA as CDx, it proceeds to reimbursement 100%

Lunit SCOPE & Pharma

Proven to Be Effective in Pharma Clinical Trials

+20 Global Big Pharma

Currently discussing research agreement/ collaboration with leading global pharmas

Monotherapy : 3x more responsive when using Lunit SCOPE IO

Phase 1 : "multiple cancer", anti-PD-(L)1 Inhibitor

Pharma → Anti-PD-(L)1

Lunit → Lunit SCOPE IO

Group	N	ORR
All analyzed set	32	21.9%
Lunit SCOPE(+)	8 (25%)	**62.5%**
Lunit SCOPE(-)	24 (75%)	8.3%

Combotherapy : 2x more responsive when using Lunit SCOPE IO

Phase 1/2 : Colorectal cancer (MSS), TGF-beta Inhibitor + anti-PD-(L)1 Inhibitor

Pharma → TGF-beta inhibitor

Pharma → Anti-PD-(L)1

Lunit → Lunit SCOPE IO

Group	N	ORR
All analyzed set	31	12.9%
Lunit SCOPE(+)	16 (51.6%)	**25.0%**
Lunit SCOPE(-)	15 (48.4%)	0%

Monotherapy : 2.6x more responsive when using Lunit SCOPE IO

Phase 2 : Rectal cancer, Chemoradiotherapy + anti-PD-(L)1 Inhibitor

Pharma → Anti-PD-(L)1

Lunit → Lunit SCOPE IO

Group	N	pCR
All analyzed set	38	28.9%
Lunit SCOPE(+)	8 (21%)	**75.0%**
Lunit SCOPE(-)	30 (79%)	16.7%

Combotherapy : 1.6x higher PFS when using Lunit SCOPE IO

Phase 2 : Nasopharyngeal cancer, Chemotherapy + anti-PD-(L)1 Inhibitor

Pharma → Anti-PD-(L)1

→ Chemotherapy

Lunit → Lunit SCOPE IO

Group	N	PFS rate (%)
All analyzed set	24	32.2%
Lunit SCOPE(+)	12 (50%)	**52.1%**
Lunit SCOPE(-)	12 (50%)	0%

Lunit SCOPE Business

Lunit SCOPE Commercialization Strategy

Lunit SCOPE

Lunit

Integration into Digital Pathology Platforms

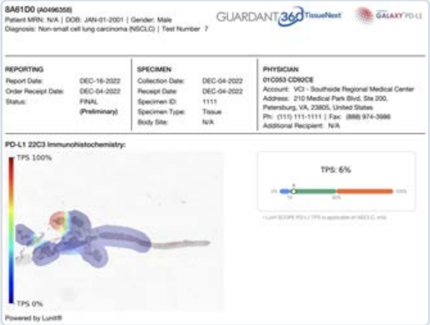
indica labs HALO QUANTITATIVE PATHOLOGY	✓ Contract signed
Company R	In discussion
Company S	In discussion
Company I	In discussion

Digital Pathology Platform

Distributed through central labs

Using Lunit SCOPE in Central Lab

GUARDANT



Central Labs

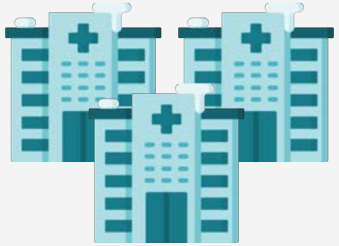
Distribution

Small/Mid-sized Hospitals

Hospitals without Pathology Lab

Distributed to hospitals

Large-sized Hospitals



Hospitals with Pathology Lab

Lunit SCOPE Business

Commercialization Roadmap

2017 -

Product Development

Lunit SCOPE®

2021 -

Biopharma Collaboration

Paired as biomarker for new drug development clinical trials

2022 -

Early Revenue (RUO Sales) $

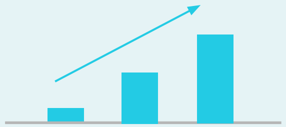
Clinical collaborations with big pharma to generate research revenue

E.g.) Guardant Health

2019 Revenue
$214M
100% RUO sales
⬇
2020
FDA Approval

2025 -

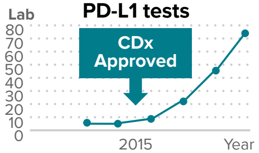
FDA Approval $$$



Exponential increase in revenue

Approved as CDx product; authorized for reimbursement

Increase in US Labs that order PD-L1 tests



CDx Approval Example PD-L1

Lunit SCOPE IO Market

$27B market for cancer biomarkers

Target Market

4.8M Immunotherapy Patients X **$1,500**

II

$7.5B

Pairing Lunit SCOPE with Cancer Drugs | **Lunit SCOPE Research Use** | **Lunit SCOPE Commercial Use**

	Drug	Indication	Decision to use SCOPE or not
Pharma X	A	X (Lung Cancer)	☑
		Y (Breast Cancer)	
	B	Z (Colorectal Cancer)	☑
		Y (Bladder Cancer)	

→ **Apply SCOPE in Clinical Trials** → **Regulatory Approval as CDx** → **CDx Sales for Patient Use**

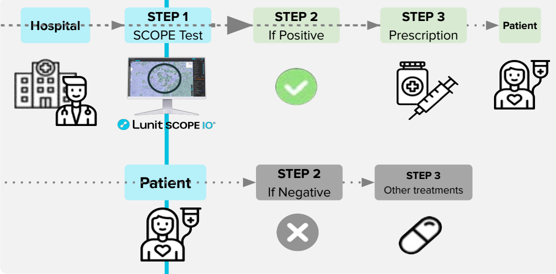
Lunit SCOPE IO®

Screening patients with SCOPE for patient enrollment in clinical trials
OR
Analyzing existing clinical trial data with SCOPE

FDA Approval

Drug : proof of efficacy

IO : CDx proof of efficacy



Research Revenue : Paying Lunit per analysis

Commercial Revenue : Paying Lunit per test

Lunit SCOPE Business

Leading with Advanced Tech, Research, and Collaboration

	Leader Group			
Company	Lunit 🇰🇷	PathAI 🇺🇸	OWKIN 🇫🇷	VISIOPHARM Pathcore IBEX nucleai indica labs aiforia deep lens PAIGE mindpeak PROSCIA
	VS Direct performance comparison in the process of investment evaluation by Guardant Health **Lunit showed superior performance**			
AI AI tech evaluation	**Annual Participation in Top-tier AI Conference** CVPR, ECCV, MICCAI, etc.		-	Weak AI
Science Medical Journals*	**150+/10+**	**60+/5+**	**20+/10+**	Weak Science
Biopharma	**Agreement DIscussion with Global Big Pharmas**	**Roche, BMS**	**Sanofi**	No Biopharma

*All abstracts and journals / SCI IF 10+ journals

Lunit SCOPE Next Steps

AI-powered "Comprehensive Histophenomic Profiling"

1940 -
1st Generation
Chemotherapy

2000 -
2nd Generation
Targeted Therapy

2015 -
3rd Generation
Immunotherapy

2025 -
4th Generation
Antibody-drug Conjugate (ADC)

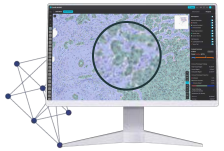
CGP (Comprehensive Genomic Profiling)

FOUNDATION MEDICINE
TEMPUS
NEO GENOMICS
EXACT SCIENCES
CARIS LIFE SCIENCES

- Comprehensive NGS-based biomarker panel mainly focusing on targeted therapy
- Accurate but slow (2~3 weeks)

Test Result	Matched Drug
EGFR mutation	Tagrisso, Iressa, ..
HER2 (ERBB2) amplification or overexpression	Enhertu, Perjeta, Herceptin, ...
BRCA1/2 mutation	Lynparza, Nerlynx, Rubraca, Talzenna, ...
ALK fusion	Alecensa, Zykadia, Alunbrig, Xalkori, ...
KRAS mutation	Lumakras, Krazati, ...
ROS1 fusion	Rozlytrek, Xalkori, ...
MET exon-skipping	Tabrecta, Tepmetko, ...
NTRK fusion	Vitrakvi, Rozlytrek, ...
FGFR2 fusion	Lytgobi, Truseltiq, ...
RET fusion	Retevmo,...
⋮	⋮

CHP (Comprehensive Histophenomic Profiling)



Lunit SCOPE®

- Comprehensive tissue-based biomarker panel → Lunit's new approach
- Comprehensive and fast (<3 days)

Test Result	Matched Drug (example)
Lunit SCOPE IO (Inflamed)	anti-PD-(L)1 +/- anti-CTLA4
Lunit SCOPE PD-L1 (Inflamed)	anti-PD-(L)1 +/- anti-CTLA4
Lunit SCOPE IO (Immune-Excluded, Fibroblast)	anti-PD-(L)1 + anti-TGFB anti-PD-(L)1 + IL7-agonist Chemotherapy + IL7-agonist
Lunit SCOPE IO (Macrophage)	anti-PD-(L)1 + Macrophage-modulators
Lunit SCOPE IO (Blood Vessel)	anti-PD-(L)1 + anti-VEGF
Lunit SCOPE HER2	anti-HER2 ADCs
Lunit SCOPE uIHC - TROP2	anti-TROP2 ADC
Lunit SCOPE uIHC - ROR1	anti-ROR1 ADCs
Lunit SCOPE uIHC - PSMA	PSMA-targeted PET
Lunit SCOPE uIHC	Novel Target ADCs
⋮	⋮

Lunit SCOPE will become a widely used biomarker panel for immunotherapy and ADCs

Our Future

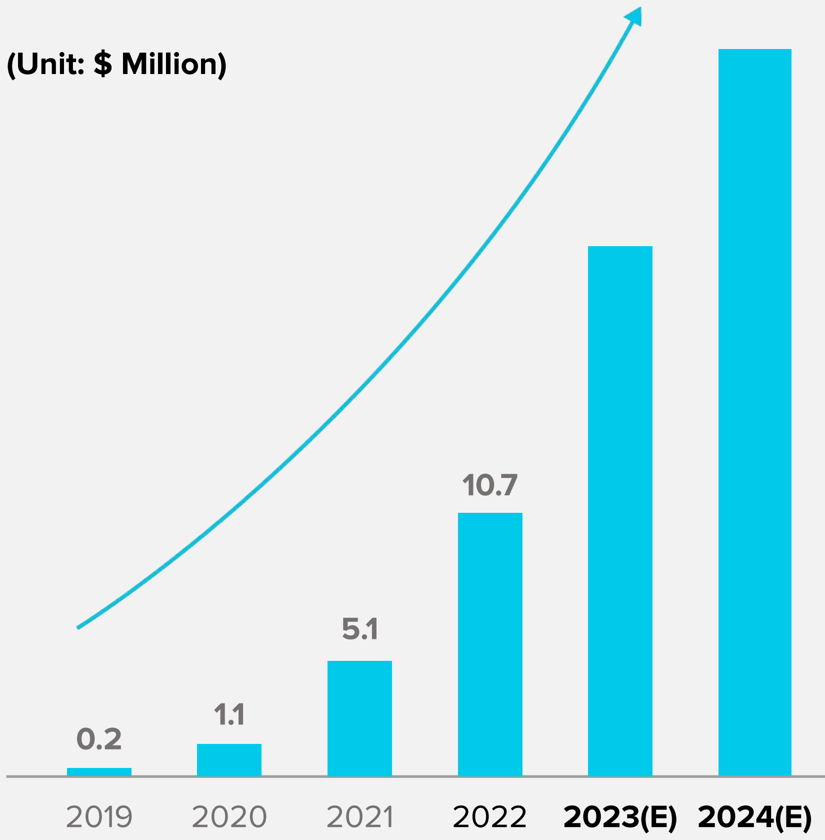
2023 INVESTOR RELATIONS

Lunit

Future Plans

Short-Term Business Expansion

Lunit Revenue Growth



Cancer Screening

Lunit INSIGHT

- **Increased revenue** through partnerships
- **Geographical expansion** through regulatory approvals
- New products: **Lunit INSIGHT DBT, etc**
- **More cancer types** screened

  lung / breast ➡ prostate / pancreas / liver, etc.

Cancer Treatment

Lunit SCOPE

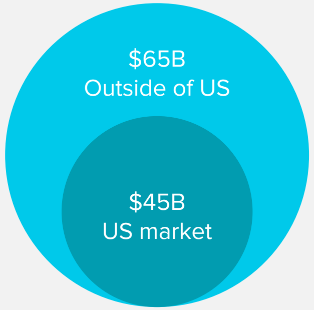
- **Increased collaboration** with pharmas
- **Increase** in Research Use Only revenue
- **Exponential revenue** after CDx approval

Future Plans

Long-Term Business Expansion

Cancer Screening

Cancer Screening/Dx Market is a “$110B opportunity”



“Liquid biopsy is the future of cancer screening”

Bert Vogelstein
Johns Hopkins Oncology

Pioneer in cancer genetics
“Breakthrough Award” (2013)

But liquid biopsy has clear limitations

LBx accuracy
30%~80%
sensitivity

Lunit will overcome the limitations through a collaboration of Imaging AI with liquid biopsy

Imaging test + AI

+

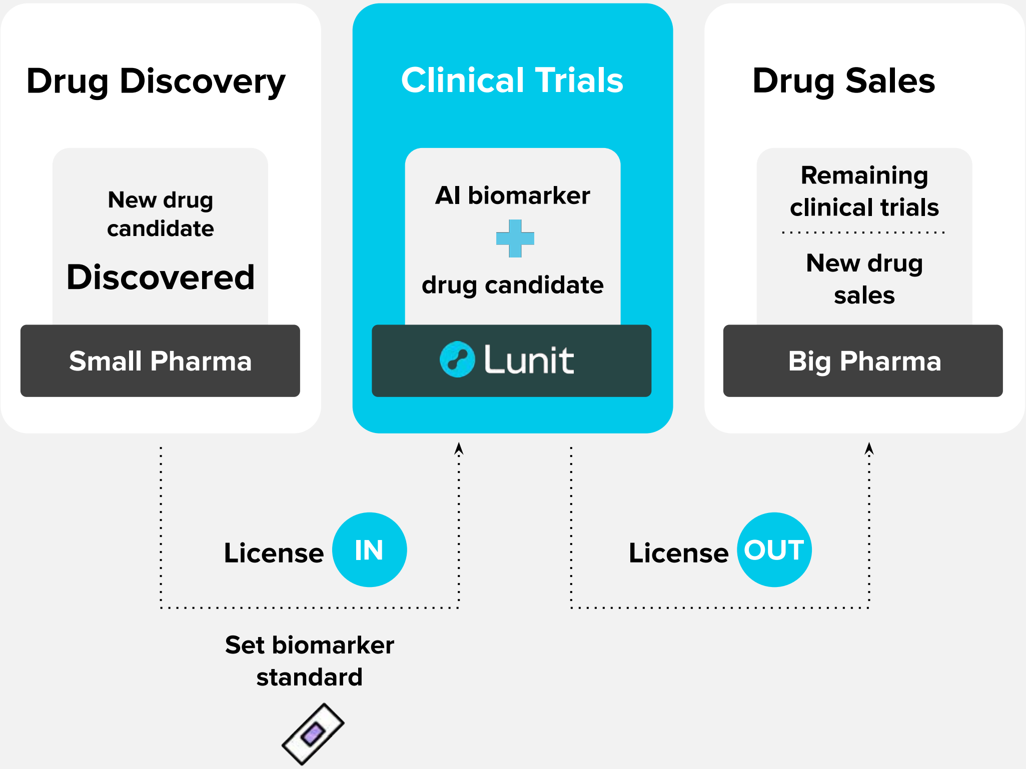
GUARDANT
LBx
DNA

New screening method

Currently in discussion with Guardant Health: a test method consisted of imaging+AI and liquid biopsy

Cancer Treatment

AI biomarker-based Drug Development Company



Drug Discovery
New drug candidate
Discovered
Small Pharma

Clinical Trials
AI biomarker
+
drug candidate
Lunit

Drug Sales
Remaining clinical trials
New drug sales
Big Pharma

License IN

License OUT

Set biomarker standard

Vision

Conquer Cancer through AI-Based Personalized Medicine

AI is bound to become the future of medicine

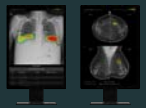
> "Lunit will become a global standard in the entire cancer care journey"

Personalized Screening/Diagnosis

Personalized Treatment

Screening ▶ **Precision Diagnostics** ▶ **Treatment** ▶ **Precision Monitoring**

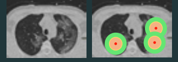
Personalized screening through Lunit INSIGHT



Lunit INSIGHT

Lunit SCOPE

Lunit-based Monitoring



THANK YOU

Lunit