

ASX RELEASE**Volpara Positioning for Growth in Lung Cancer Screening**

Wellington, NZ, 28 September 2021: Volpara Health Technologies Limited (“Volpara,” “the Group,” or “the Company”; ASX:VHT), a global health technology software leader providing an integrated platform for the delivery of personalised patient care, will **today** host an investor webinar to update shareholders on recent announcements on the Company’s expansion into the lung cancer screening market in the US. The presentation is attached to this announcement.

The call will be hosted by Dr Ralph Highnam PhD, Chief Executive Officer of Volpara Health and Chris Wood, CEO of RevealDx.

Webinar details

Date: Tuesday 28th September 2021

Time: 12:00pm NZST (Auckland/Wellington), 9:00am AEST (Sydney/Melbourne)

To register: https://us02web.zoom.us/webinar/register/WN_gAA5nHMKQlq997g40OXzdQ

Dial in details: Will be provided to you upon registration

Authorisation & Additional Information

This announcement was authorised by the Group CEO Dr Ralph Highnam.

ENDS**For further information, please contact:**

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About Volpara Health Technologies Limited (ASX: VHT)

VHT is a health technology software company founded in 2009 on research originally conducted at Oxford University. VHT's clinical functions for screening clinics provide feedback on breast density, compression, dose, and quality, while its enterprise-wide practice-management software helps with productivity, compliance, reimbursement, and patient tracking.

VHT's technology and services have been used by customers and/or research projects in 39 countries and are supported by numerous patents, trademarks, and regulatory clearances, including FDA clearance and CE marking. Since its listing on the ASX in April 2016, VHT has raised A\$132 million, including A\$37 million in April/May 2020 and has made two significant acquisitions in MRS Systems, Inc. (patient tracking software), and CRA Health LLC (risk and genetics software). VHT is based in Wellington, New Zealand.

For more information, visit www.volparahealth.com



Positioning for Growth in Lung Cancer Screening



Dr Ralph Highnam
CEO Volpara Health

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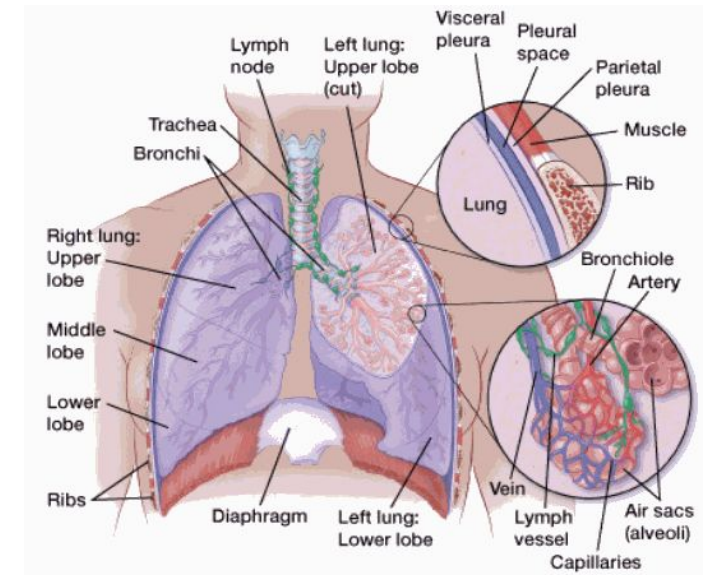
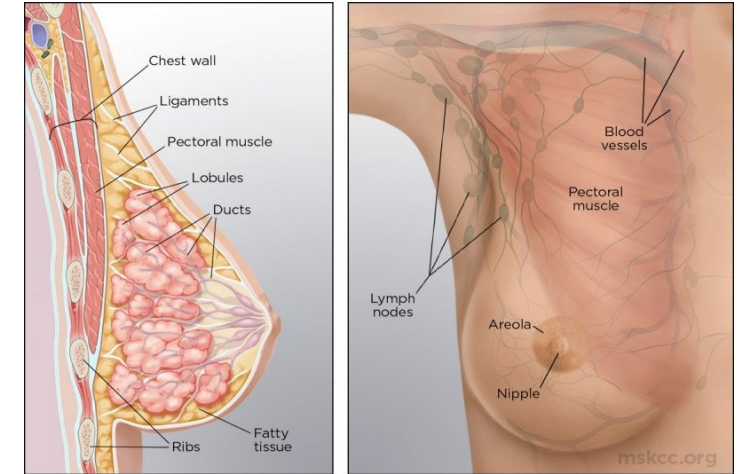


Chris Wood
CEO RevealDx

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Saving Families from Cancer

- We will achieve our mission by being a leader in cancer prevention software for women
- As of end June 2021, Volpara's software is helping 33% of all US women screened for breast cancer—growing this figure remains our main commercial focus
- Lung's commercial opportunity in the US is at least equal to breast based on number of reported annual cases (230,000 lung vs. 280,000 breast) and numbers of women dying every year from the respective diseases (60,000 vs. 42,000)¹
- Lung cancer screening is expanding globally, and Volpara is well positioned having entered the market with the 2019 acquisition of MRS Systems and the Patient Hub™ lung tracking & reporting product, covering ~8% of the US market
- As lung screening uptake grows, we believe the market for lung AI software in the US alone could exceed US\$400M ARR
- Our approach, as in breast, is to innovate or partner to bring in deep AI expertise and build out a comprehensive, secure software platform for the market



Lung cancer today: late diagnosis, poor survival, heavy costs

Today, lung cancers are typically found late via symptoms or from **incidental** findings by imaging for other diseases.

REPORT ON THE
LUNG CANCER
SCREENING
ENQUIRY

FIGURE 2.7 INCIDENCE OF SELECT CANCERS BY REGISTRY DERIVED (RD) STAGE AT DIAGNOSIS

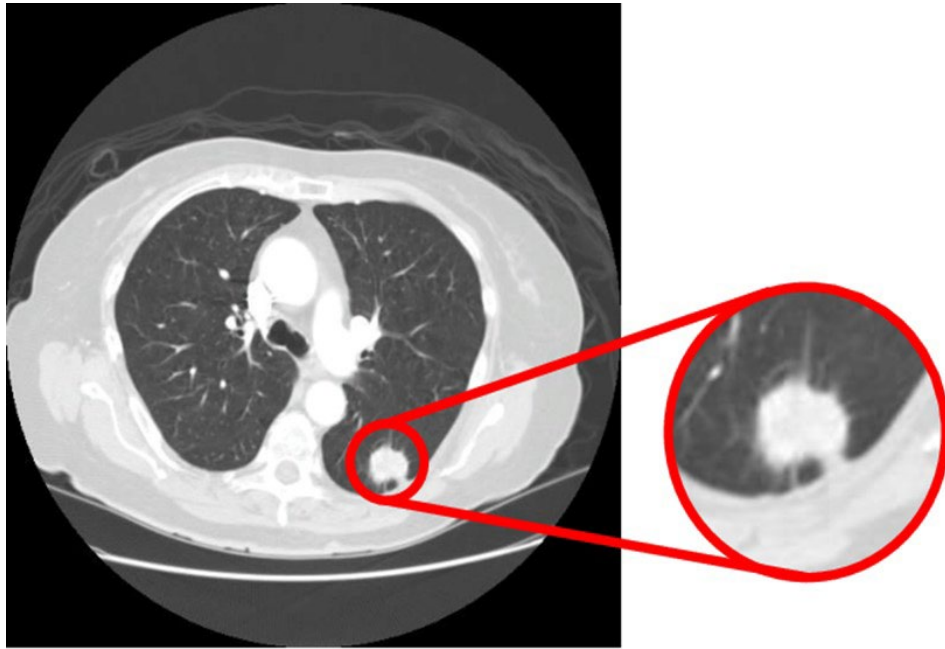
Cancer site/type	RD stage at diagnosis					Total
	I	II	III	IV	Unknown	
Breast cancer (females) % of total cases	43	34.7	12.1	4.6	5.5	100
Lung cancer % of total cases	11.7	6.5	11.2	42.2	28.5	100

5-Year relative survival rates for non-small cell lung cancer (based on people diagnosed with NSCLC between 2008 and 2014)		
SEER Stage	5-Year survival rate	
	NSCLC	SCLC
Localized	60%	29%
Regional	33%	15%
Distant	6%	3%
All SEER stages combined	23%	6%

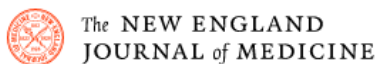
Lung cancer costs the United States \$21Bn per year in lost earnings¹

¹ Islami, JAMA 2019

Lung cancer screening reduces mortality by ~20%



N Engl J Med. 2011 August 4; 365(5): 395–409. doi:10.1056/NEJMoa1102873.



Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening

The National Lung Screening Trial Research Team*

ORIGINAL ARTICLE

Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial

Harry J. de Koning, M.D., Ph.D., Carlijn M. van der Aalst, Ph.D., Pim A. de Jong, M.D., Ph.D., Ernst T. Scholten, M.D., Ph.D., Kristiaan Nackaerts, M.D., Ph.D., Marjolein A. Heuvelmans, M.D., Ph.D., Jan-Willem J. Lammers, M.D., Ph.D., Carla Weenink, M.D., Ph.D., Uraujh Yousaf-Khan, M.D., Ph.D., Nanda Horeweg, M.D., Ph.D., Susan van 't Westeinde, M.D., Ph.D., Mathias Prokop, M.D., Ph.D., et al.

- Smoking is the main risk factor for lung cancer, but nearly ~40% of lung cancers in former smokers occur more than 15 years after stopping¹ and 10–20% of lung cancers are in people that never smoked²
- Screening of high-risk populations using low-dose CT has been shown to reduce mortality by ~20% (NLCST, NELSON), but CTs take time and expense to read
- US has just doubled to 15M³ the number eligible for lung screening (ages 50–80, 20 pack years); uptake remains low but is growing as the benefit becomes better known⁴
- With 34M adult smokers in the United States⁵ and cancers appearing many years after smoking cessation plus worsening air pollution⁶, lung cancer is not going away

¹ JAMA Surgery 2021

² CDC web page 2021

³ Lancet, 2021

⁴ American Cancer Society 2020

⁵ CDC report 2019

⁶ Cancer Research UK 2021

Lung cancer screening expanding globally

Early CT scans deliver huge fall in lung cancer deaths, study shows

Experts say screening smokers and ex-smokers would significantly reduce mortality rate from disease



▲ CT scans can pick up tumours in people's lungs at early stages when they can still be successfully treated.
Photograph: Sergei Krasnoukhov/TASS

Screening **smokers and ex-smokers** could dramatically reduce deaths from lung cancer - Britain's biggest cancer killer - a major new study has found.

Lung cancer screening update – May 2021

The Australian Government has announced it will invest \$6.9 million to commence the early scoping of a potential national lung cancer screening program from 1 July 2021, to increase early diagnosis and survivorship, and improve lung cancer outcomes.



Report on the Lung Cancer Screening Enquiry was prepared and produced by:

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canceraustralia.gov.au
© Cancer Australia 2020.

+UNDOCTORED | Māori-led trial of lung cancer screening a first for New Zealand

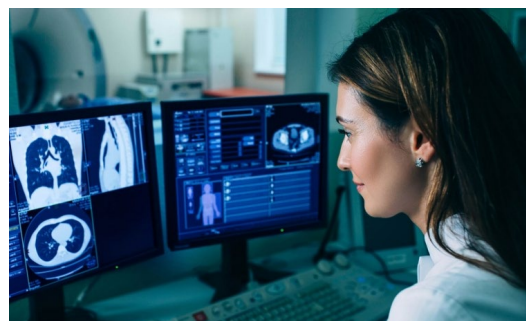
Media release from the Health Research Council
Wednesday 19 May 2021, 05:05 PM

US lung cancer screening – AI and advanced software tools

High-risk patients
invited to screening



Low-dose CT



Radiologist looks for signs of
cancer (nodules), comparing to
prior scans

→ All clear, return next year
Or: nodules found,
measured, analysed:

- Follow-up imaging
- Biopsy
- Other tests
- Treatment

Patient
management & risk
assessment tools

→ Patient reporting tools
Imaging workstation & PACS
Computer-aided detection
>15% false negative²

20–30%¹

→ Nodule characterisation
~95% likely benign¹

Volpara CRA Risk

Riverain
TECHNOLOGIES

MeVis



Quality Management System (/Analytics)

- Regulatory compliance
- Clinical performance
- Efficiency

¹NLCST, NEJM 2011

²Bartlett, JTO, 2021

US lung cancer screening by the numbers

- Lung cancer costs the US economy an estimated US\$21Bn each year in lost earnings¹
- ~15M people are eligible to be screened² using low-dose lung CT, with the various insurers paying ~US\$250 per screen—US\$3.75Bn business is developing (should everyone attend; current rate is <15%⁶)
- 20–30% of everyone screened³ will have nodules to be investigated with extra imaging, biopsy, or another test—assuming an average cost of US\$3K per person,⁴ screening will generate up to ~US\$10Bn⁵ in diagnostic work-up costs
- Lung cancer screening software offers:
 - Better quality control and more automation of processes
 - Faster and more accurate results with significantly fewer missed nodules
 - More cancers to be diagnosed early with fewer false positives and associated complications by better characterisation of nodules

Saving 20% of costs would save payers over US\$2Bn per year. Charging 20% of those savings, the US market alone presents an ARR opportunity in excess of US\$400M.

¹ Islami, JAMA 2019

²USPTF, Lancet 2021

³NLST, NEJM 2011

⁴Lokhandwala, CLC, 2016

⁵Assumes incidental nodules are caught by screening

⁶Yong et al, Chest 2020

Volpara Patient Hub for lung

File Records Printing Customizations Reports Administration

Clipboard Patient Data Templates History Utilities Sticky Note Default

On Hold Waiting for Priors Waiting for Findings Final Save as Template

Worklists Patient Name Save As Cancel

Imaging Findings

Findings	Type / Diameter / Volume	Nodule Change Info	Risk Percentage	Lung-RADS® / Recommendation	Active
Nodule 1	s / 2.5mm / 0.01 cm³	-16.7% --0.5mm 12m	0.05%	2 LDCT/1y	<input checked="" type="checkbox"/>

For reference only, not for diagnostic purposes.

Right Lung Left Lung

Add incidental finding

Overall Findings

☐ Analyzed by CAD ☐ No Nodules Identified by CAD ☐ No Significant Changes When Compared with Prior Studies

Ascending Aorta Width (mm) Descending Aorta Width (mm)

Assessments

Nodule 1 Active

☒ Solid ☐ Part solid ☐ Non solid ☐ Solid/Endo bronchial

Diameter (mm) 2.50 Volume (cm³) 0.01 ☐ Spiculated ☐ Fat-containing

Calcifications RECIST Percentage

Laterality Right Lobe Upper Location Anterior Slice No. 250

Description

- Patient tracking
- Patient reporting

MeVis – Veolity



- Full lung cancer imaging workstation, geared for volume reading
- Includes computer-aided detection and nodule measurement

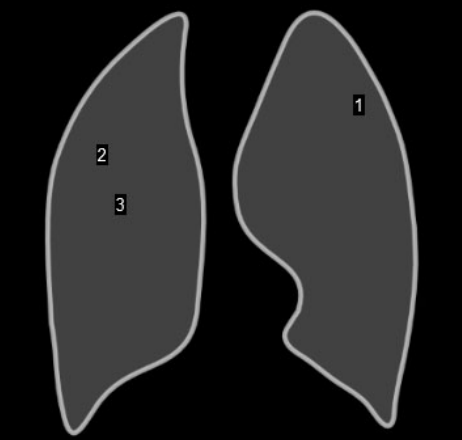
Riverain – ClearRead

- Image enhancement to help visual detection
- Computer-aided detection and nodule measurement
- Riverain's claims:

Better for radiologists

- Increased efficiency and productivity
- Saves time (26% faster)
- Improves accuracy (29% fewer missed nodules)
- Provides peace of mind and confidence in results

Accession NODMATCH0200
Study Date 1998-03-03
Series # 5418
Prior Accession NODMATCH0299
Prior Study Date 1998-01-01
Prior Series # 3163



Current Lung Vol Right 2.50 L Left 2.90 L
Prior Lung Vol Right 2.40 L Left 2.80 L

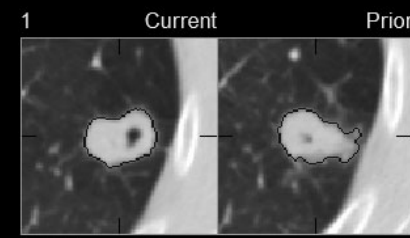


Image 28 30
Location LUL
Type Solid
Avg. Diameter (mm) 18.9 20.5
Volume (mm3) 4150 3044
Volume Change (%) 36.33

ClearRead CT

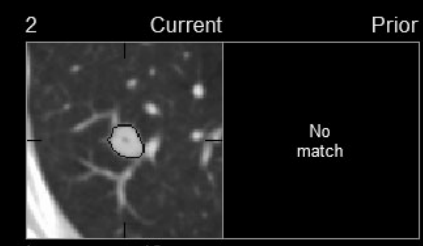


Image 40
Location RUL
Type Solid
Avg. Diameter (mm) 10.1
Volume (mm3) 695

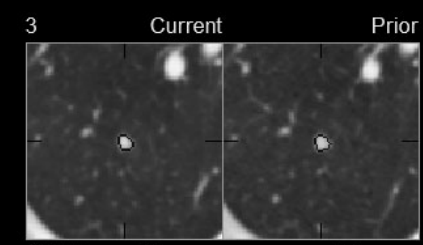
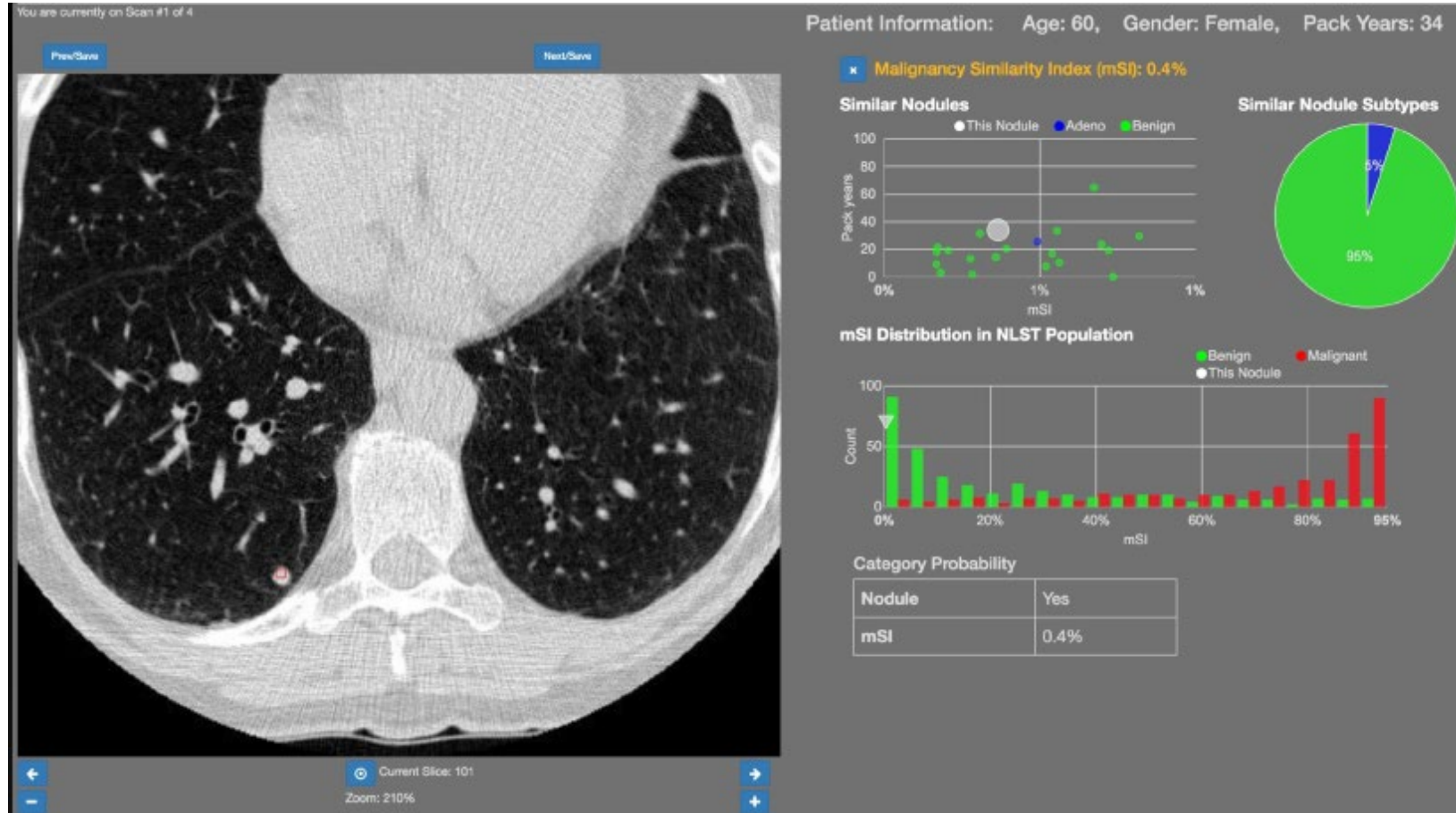


Image 52 54
Location RLL
Type Solid
Avg. Diameter (mm) 4.4 4.4
Volume (mm3) 130 152
Volume Change (%) -14.59

RevealDx – RevealAI-Lung: nodule diagnosis



- With one click, the radiologist receives a nodule diagnostic report, helping to reduce false positives and get cancers acted on earlier—papers due out soon
- CE marked, working on FDA and TGA
- Patented and robust across systems and explainable AI
- Potential to significantly save payer costs, lives, and stress

Software technology stacks for personalised screening

	Breast	Lung
Patient Management System (/EHR)		
Empowering Tools	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prediction Tools	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Tools	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Detection Tools	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Diagnosis Tools	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Quality Management System		

- Stacks are similar, except diagnostic tools are more compelling in lung due to the complexity of doing lung biopsies as compared to breast
- Creating one platform to sell with smooth integration between products all inside a security-conscious IT vendor will be compelling
- Experience shows that each specialized stack requires deep AI skills, hence our in-house investments and partnerships
- Getting in early, at the start of screening programs, is easier than later, when they are established and rigid

Growth strategy, competition and potential partners

- Multiple AI companies are looking at detection of nodules: Arterys, Neusoft, Merge et al.
- Several AI companies are looking at diagnosis of nodules, e.g., Optellum and Median Technologies
- Other AI companies are looking at prediction, such as Google Health
- Many companies are in the patient tracking and reporting space, including PenRad and MagView
- *No company offers a broad platform of integrated products*

Volpara aims to offer an end-to-end and fully integrated lung cancer screening, reporting, and patient care platform across the US and APAC regions

- Partnering with industry-leading lung AI companies to bring in deep expertise
- Leveraging its installed base in breast to build off already-signed purchasing agreements, including sites that want to conduct breast and lung screening
- Working with luminaries to get established, working towards reimbursement in the United States
- Working with screening programs as they start up, focusing on incidental nodules in the meantime

Summary from *The Imaging Wire*

Saving Families
from Cancer
means lung cancer
AI a natural
expansion

Lung cancer
opportunity for AI
expected to be
US\$400M+ ARR in
the US alone

The Takeaway – Lung cancer screening volumes are about to significantly increase in the US (and potentially globally), creating new bandwidth and workflow constraints, and driving demand for comprehensive solutions that support the entire screening and patient management pathway. With these alliances, Volpara, Riverain, and RevealDx are far better positioned to support that pathway.

<https://www.theimagingwire.com>

The Imaging Wire

Volpara's Lung Cancer Push

Breast imaging AI leader Volpara Health took a big step into the lung cancer AI segment last week, launching partnerships with Riverain Technologies and RevealDx. Here are some details.

Volpara & Riverain – Volpara and Riverain **announced plans** to integrate Riverain ClearRead CT (AI-based lung nodule detection) and the Volpara Lung platform (lung cancer screening reporting, tracking, and risk assessment), giving Volpara a market-leading detection partner and extending the clinical value of both tools.

Volpara & RevealDx – Within days, **Volpara announced** a \$250k strategic investment in AI-based lung nodule diagnosis startup RevealDx, that will allow Volpara to sell RevealDx's RevealAI-Lung tool (CE-marked, FDA pending) in the US and make Volpara its exclusive distributor in Australia / New Zealand.

Not That Surprising – Volpara's lung cancer screening expansion isn't as surprising as some might think. Volpara first entered the lung cancer screening segment through **its 2019 acquisition of MRS Systems**, which likely targeted MRS' breast cancer screening management software but also included its lung cancer screening platform (used w/ 8% of US LC screenings). Volpara also built its business around supporting population-scale cancer screening workflows and it has a long history of complementary partnerships within its breast imaging business.

The Takeaway – Lung cancer screening volumes are about to significantly increase in the US (and potentially globally), creating new bandwidth and workflow constraints, and driving demand for comprehensive solutions that support the entire screening and patient management pathway. With these alliances, Volpara, Riverain, and RevealDx are far better positioned to support that pathway.



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