



Morgans Technology Conference, November 2021

Investor Presentation: Data and AI



Ralph Highnam, PhD (Oxford)

Group CEO & Founder

Ralph.Highnam@VolparaHealth.com

ASX:VHT

**1 in 8 US women
will develop
breast cancer***

**Saving Families
from Breast Cancer**

Detection to Prevention Using AI

*American Cancer Society 2021 estimates

Important Notice and Disclaimer

This presentation, dated 24th November 2021, has been prepared solely for the purpose of providing potential investors with information about Volpara Health Technologies Limited ("Volpara," "VHT," or the "Company"). The information contained in this presentation is of a general background nature, is in summary form, and does not purport to contain all the information that a potential investor may need or desire. Potential investors should conduct their own investigation and analysis of Volpara and of the information contained in this presentation and should rely solely on their own judgement, review, and analysis in deciding whether to invest in Volpara. The information in this presentation has been prepared in conjunction with an oral presentation and should not be taken out of context. The content of this presentation is provided as at the date of this presentation (unless otherwise stated) and the information in this presentation is subject to change without notice.

Forward-looking statements

This presentation may include forward-looking statements. Such statements can generally be identified by the use of words such as "may," "will," "expect," "intend," "plan," "estimate," "anticipate," "believe," "continue," "objectives," "outlook," "guidance," "forecast," and similar expressions. Indications of plans, strategies, management objectives, sales, and financial performance are also forward-looking statements. Such statements are based on assumptions and contingencies which are subject to change without notice and are not guarantees of future performance. Such statements involve known and unknown risks, uncertainties, assumptions, contingencies, and other factors, many of which are outside the control of Volpara. No representation is made or will be made that any forward-looking statement will be achieved or will prove to be correct. Actual results, performance, operations, or achievements may vary materially from any forward-looking statements. Circumstances may change and the content of this presentation may become outdated as a result. Readers are cautioned not to place undue reliance on forward-looking statements, and Volpara assumes no obligation to update such statements except as required by law. No representation or warranty, expressed or implied, is made as to the accuracy, reliability, adequacy, or completeness of the information contained in this presentation.

Past performance

Past performance information given in this presentation is given for illustrative purposes only and should not be relied upon as (and is not) an indication of future performance.

Information is not financial or product advice or offer of securities

This presentation is not, and is not intended to constitute, financial or product advice, or an offer, invitation, solicitation, or recommendation to acquire or sell Volpara shares or any other financial products in any jurisdiction, and is not a prospectus, product disclosure statement, disclosure document, or other offering document under Australian law or any other law. This presentation also does not form the basis of any contract or commitment to sell or apply for securities in Volpara or any of its subsidiaries. It is for information purposes only. Volpara does not warrant or represent that the information in this presentation is free from errors, omissions, or misrepresentations or is suitable for any intended use. The information contained in this presentation has been prepared without taking account of any person's investment objectives, financial situation, or particular needs and nothing contained in this presentation constitutes investment, legal, tax, or other advice. The information provided in this presentation may not be suitable for a potential investor's specific needs and should not be relied upon in substitution obtaining independent advice. Subject to any terms implied by law and which cannot be excluded, Volpara accepts no responsibility for any loss, damage, cost, or expense (whether direct, or indirect, consequential, exceptional, or special damages including but not limited to loss of revenue, profits, time, goodwill, data, anticipated savings, opportunity, business reputation, future reputation, production or profit, any delay costs, economic loss, or damage) incurred by any person as a result of any error, omission, or misrepresentation in this presentation.

Preparation of information

All financial information has been prepared and reviewed in accordance with Generally Accepted Accounting Practice in New Zealand, New Zealand Equivalents to International Financial Reporting Standards, and International Financial Reporting Standards. Certain financial data included in this presentation is "non-IFRS financial information". The Company believes that this non-IFRS financial information provides useful insight in measuring the financial performance and condition of Volpara. Readers are cautioned not to place undue reliance on any non-IFRS financial information, including ratios, included in this presentation.

Third-party information and market data

The views expressed in this presentation contain information that has been derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness, or reliability of the information. This presentation should not be relied upon as a recommendation or forecast by Volpara. Market share information is based on management estimates except where explicitly identified.

No liability or responsibility

The information in this presentation is general in nature and is provided in summary form and therefore does not purport to be complete. No other party than Volpara has authorised, permitted, or caused the issue or lodgement, submission, dispatch, or provision of this presentation, and there is no statement in this presentation which is based on any statement made by any of them or by any party other than Volpara. To the maximum extent permitted by law, Volpara and each of its affiliates, directors, employees, officers, partners, agents, and advisers expressly disclaim all liabilities in respect of, and make no representations regarding, and take no responsibility for, any part of this presentation and make no representation or warranty as to the currency, accuracy, reliability, or completeness of this presentation.

To the maximum extent permitted by law, Volpara and each of its affiliates, directors, employees, officers, partners, agents, and advisers and any other person involved in the preparation of this presentation disclaim all liability and responsibility (including without limitation, any liability arising from fault or negligence) for any direct or indirect loss or damage which may arise or be suffered through use or reliance on anything contained in, or omitted from, this presentation. Volpara accepts no responsibility or obligation to provide an update in respect of any matter arising or coming to their attention after the date of this presentation which may affect any matter referred to in this presentation. Each recipient of this presentation represents and warrants to Volpara that it is able to receive this presentation without contravention of any applicable law or legal restriction in the jurisdiction in which the recipient resides, conducts business, or receives this document.

This presentation should be read in conjunction with Volpara's other periodic and continuous disclosure announcements lodged with ASX.

Volpara Health Technologies Ltd

Volpara (ASX:VHT) is a health technology software company with an integrated breast health platform designed to deliver personalized care for the ~92M women screened for breast cancer globally each year.

Our platform is one of the most clinically validated in the industry and features individual patient management through to enterprise-wide analytics, all licensed on a subscription (SaaS) basis.

Sales are both direct and through electronic health record (EHR) companies, GE Healthcare, Fuji Medical, and others, and we estimate this to be a US\$750M ARR market.

Based in Wellington, New Zealand, we have about 200 staff spread across the globe, with the United States our biggest market.

With the data we're collecting, we aim to change the paradigm of screening from detection to prevention in order to dramatically reduce the global death toll of ~700,000 women each year:

Predict | Monitor | Detect & Empower™

Key commercial status to
end Q2 (30 Sept 2021):

~13.4M+

US screenings are contracted to use at
least one Volpara product, that's ~34%

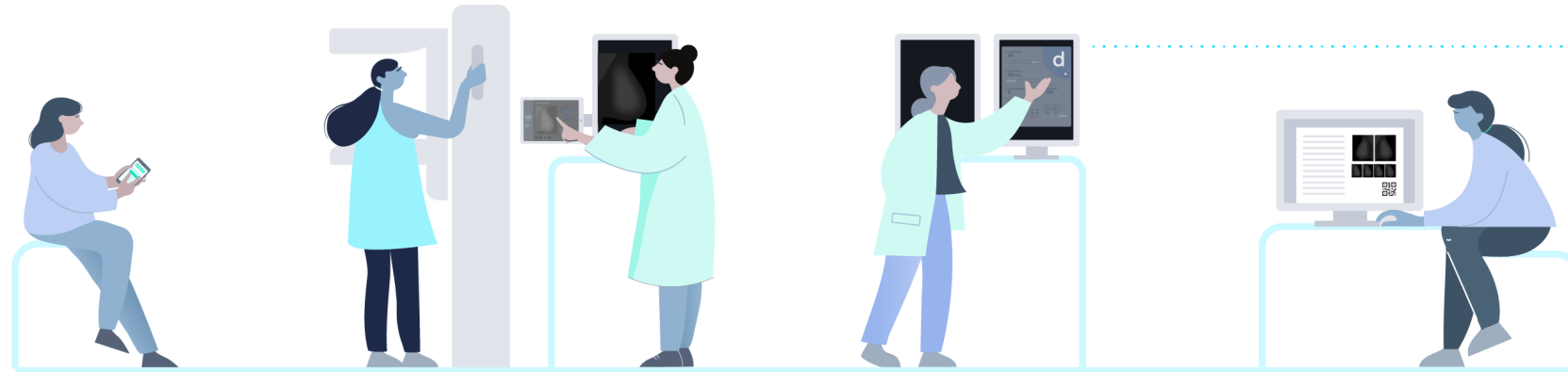
US\$20.4M+

Annual Recurring Revenue
from 700+ customers

90%+

Gross Margin
Up from 86% in FY2020

Volpara Breast Health Platform – delivering personalised care



Risk

A full program for identifying and managing high-risk patients

Live

Get fast imaging feedback for relevant on-the-job training

Scorecard

View patient risk insights essential for early detection

Patient Hub

Speed your workflow with customisable communications

Density Score

Objective, automated breast density score to personalise breast care

Risk Score

Patient's likelihood of developing breast cancer (Tyrer-Cuzick v8 Lifetime Risk Model)

Transpara by ScreenPoint

Detect and diagnose cancers faster

Potential triage paths



Ultrasound

Intermediate risk
High density



Genetic testing

High risk
Meet guidelines



MRI or contrast-enhanced mammography

High risk

Patient Hub

Customisable patient reporting and tracking

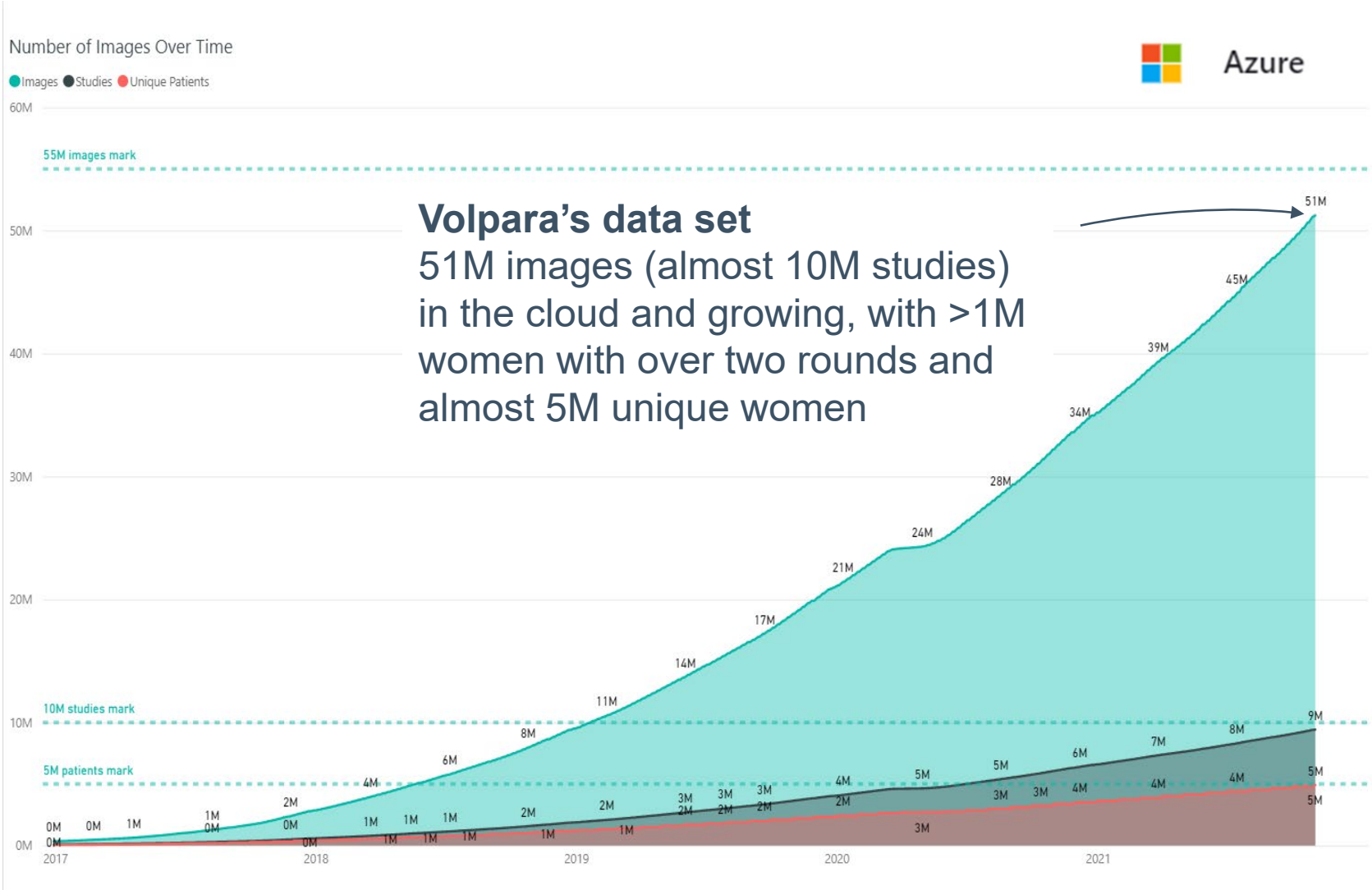


Analytics

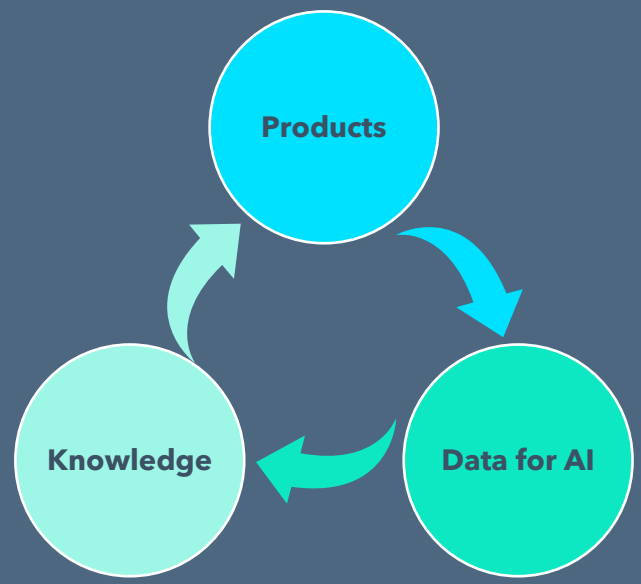
Monitor your team's performance with automated image-quality metrics



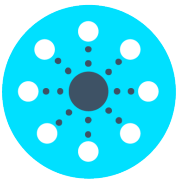
Products provide the data to fuel AI and knowledge



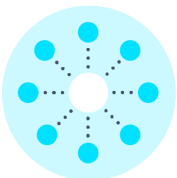
This virtuous cycle is our biggest asset in our work to save families from cancer



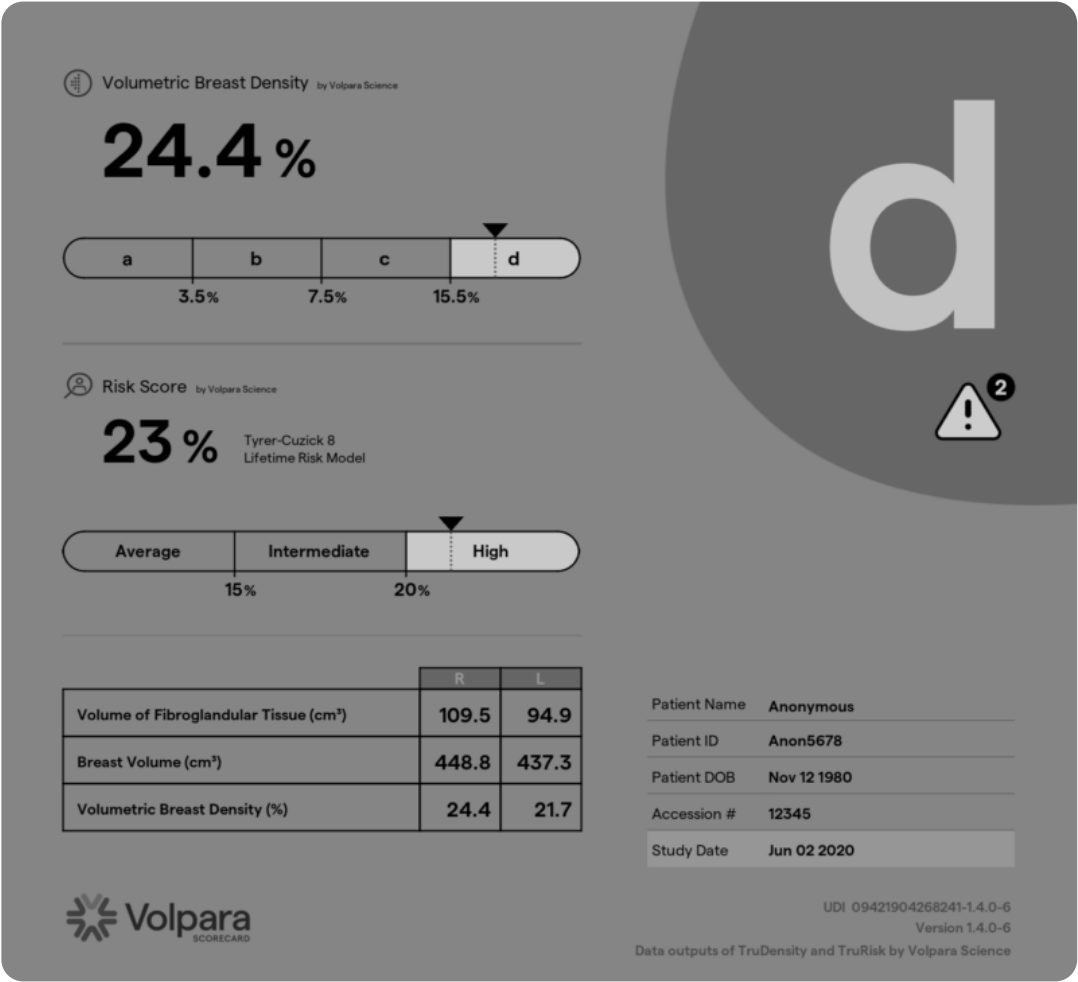
Data in use: Volpara Scorecard 4.0 and onwards



Built on the massive diverse datasets we have from multiple x-ray vendors and populations, including enough rare cases for us to work around.



Built on data flowing from Patient Hub telling us how radiologists are reading, before and after Volpara—effectively, we have a prospective AI trial platform.



PRODUCTS PROVIDE THE DATA TO FUEL AI AND KNOWLEDGE

Data in use: Quality benchmarks

Basset paper

1993

(Manual Assessment)

6

Mammography technologists

1,000

Mammography images

Huppe paper

2018

(Manual Assessment)

5

Mammography technologists

340

Mammography images

Volpara Analytics benchmarks

2021

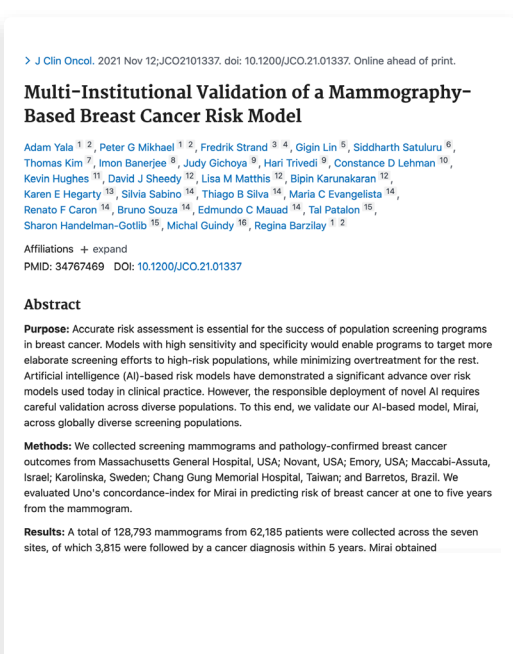
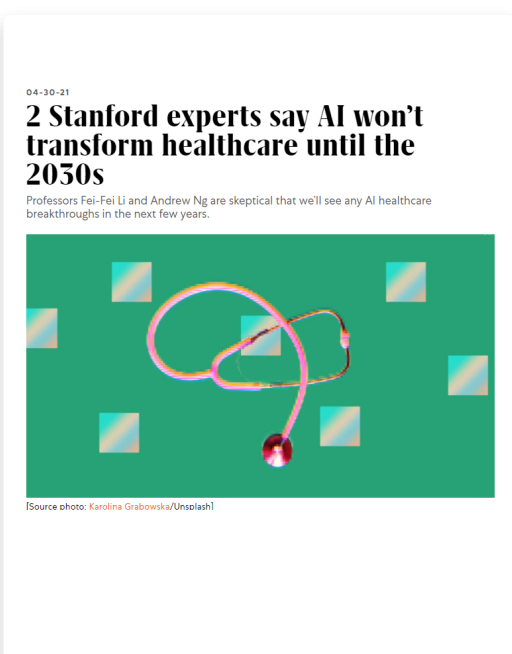
2,000+

Mammography technologists

3 million+

Mammography images

Future innovation: the right data is the key to AI success

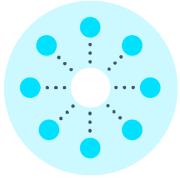


“Promising results in smaller studies are not replicated in larger studies. Prospective studies are required to measure the effect of AI in clinical practice.”

“...getting AI to work across vendors and sites is extremely difficult.”

“Moreover, Mirai was only developed and tested using Hologic mammograms. Future work will be needed to test and adapt this technology to more mammography vendors and to tomosynthesis images.”

Data must be linked, curated, and standardized for AI

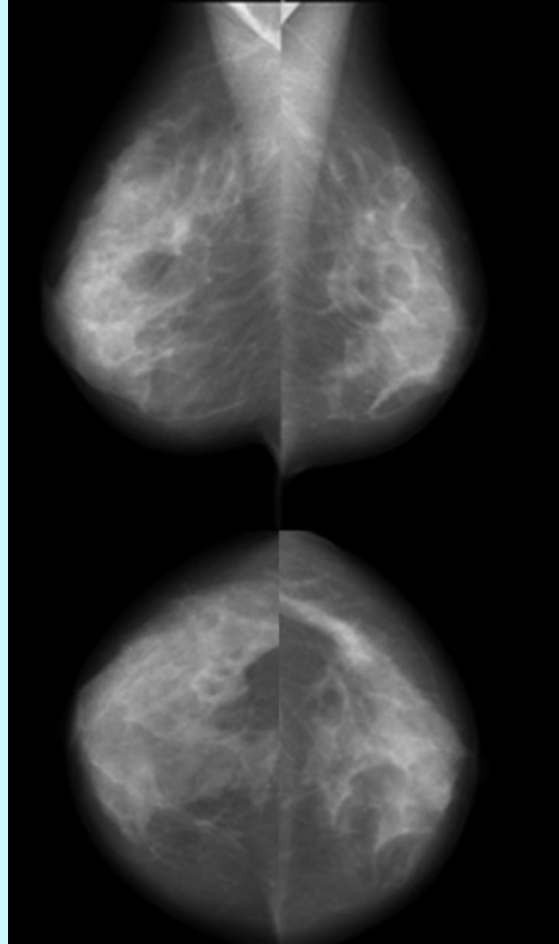


The raw data is quantitative and much more standardized. Volpara stores the raw data—currently, only single projections.

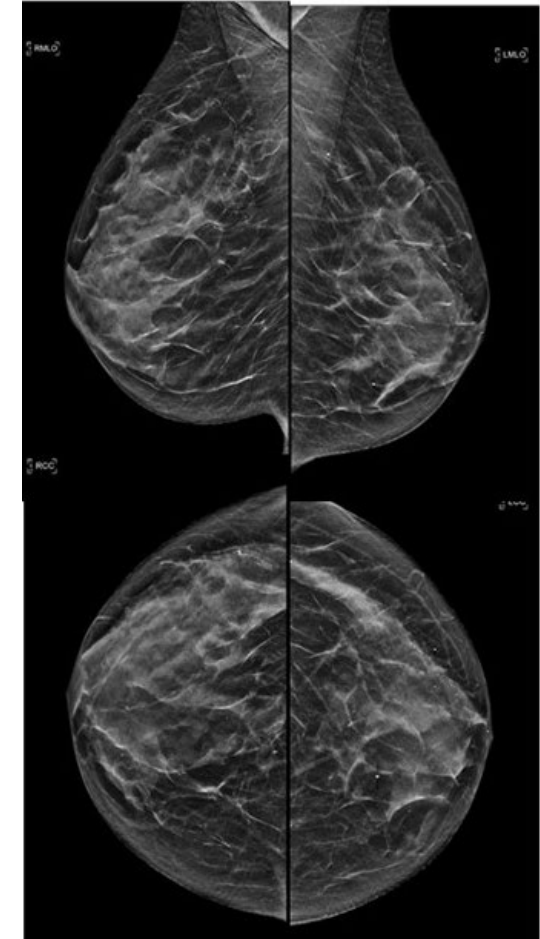


We are now rolling out software to link up Patient Hub information with the images in the cloud to allow rapid development of new models, reports, and insights.

“Raw” data direct from the x-ray



“Presentation” data stored on the PACS
Manufacturer-specific processing; can be adjusted by user



Predict | Monitor | Detect & Empower



Predict

Predict who is going to get breast cancer far better than current models by using data of millions of women, not just thousands, from imaging, history, and genetics



Monitor

Monitor women to ensure prevention strategies are working, but also to check that drugs like HRT are not increasing cancer risk through density changes



Detect

Detect the earliest signs of cancer using standard & temporal CAD



Empower

Empower women to make informed decisions around their personalised breast care by providing knowledge, silo-breaking data access in the cloud, and content grounded in science

Biological Mechanisms and Therapeutic Opportunities in Mammographic Density and Breast Cancer Risk

Maddison Archer ^{1,2}, Pallave Dasari ^{1,2}, Andreas Evdokiou ¹, Wendy V Ingman ^{1,2}

Affiliations + expand

PMID: 34771552 PMID: PMC8582527 DOI: 10.3390/cancers13215391

[Free PMC article](#)

Abstract

Mammographic density is an important risk factor for breast cancer; women with extremely dense breasts have a four to six fold increased risk of breast cancer compared to women with mostly fatty breasts, when matched with age and body mass index. High mammographic density is characterised by high proportions of stroma, containing fibroblasts, collagen and immune cells that suggest a pro-tumour inflammatory microenvironment. However, the biological mechanisms that drive increased mammographic density and the associated increased risk of breast cancer are not yet understood. Inflammatory factors such as monocyte chemoattractant protein 1, peroxidase enzymes, transforming growth factor beta, and tumour necrosis factor alpha have been implicated in breast development as well as breast cancer risk, and also influence functions of stromal fibroblasts. Here, the current knowledge and understanding of the underlying biological mechanisms that lead to high mammographic density and the associated increased risk of breast cancer are reviewed, with particular consideration to potential immune factors that may contribute to this process.

Keywords: breast cancer risk; fibroblasts; hormones; immune signaling; inflammation; mammographic density.