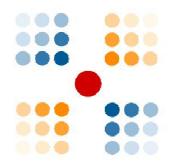
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# Commercialising the FerriScan™ Technology

"The Future of Liver Diagnosis"

Investor Update February 2005



### Commercialising the FerriScan™ Technology "The Future of Liver Diagnosis"



- Resonance Health (ASX:RHT) specialises in liver diagnostic imaging technology.
- The FerriScan<sup>™</sup> Technology is a novel, non-invasive liver diagnostic with global applications developed by a multi-disciplinary team at The University of Western Australia.
- Resonance Health controls 51% of the voting rights of Inner Vision Biometrics Pty Ltd ("IVB"), which owns FerriScan™, and is providing capital and commercial expertise to roll out the technology on a global basis.
- Resonance Health is earning a 51% fully diluted equity interest in IVB.



## What is the FerriScan™ Technology



- A safe, non-invasive and accurate test to measure liver iron concentration
- Utilises existing MRI equipment, proprietary software and a patented iron "marker" known as "R2".
- Provides clinicians around the world with a new and safe diagnostic tool to track liver iron levels in their patients on a regular basis.
- Eliminates the need for a liver needle biopsy in many cases; replacing a painful, invasive procedure that has many shortcomings.



## Why Test for Iron Overload?



- Chronic disorders of iron metabolism are among the most common diseases (1 in 200 for HHC).
- The result is too much iron is absorbed by the digestive system and accumulates in the body (and in its largest organ – the liver).
- Iron overload has previously been difficult to detect and manage.
- If left untreated, iron toxicity is a major cause of organ damage:
  - Liver fibrosis / cirrhosis
  - Heart congestive heart failure and arrhythmia
  - Pancreas diabetes, arthritis of the joints.



### Diseases Associated With Iron Overload



- Thalassaemia (minor & major)
  - Hereditary conditions prevalent in people of Mediterranean descent and in parts of South East Asia. Thalassaemia (major) is a very severe and debilitating form of anemia (typically a terminal illness).

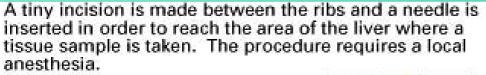
#### Haemochromatosis

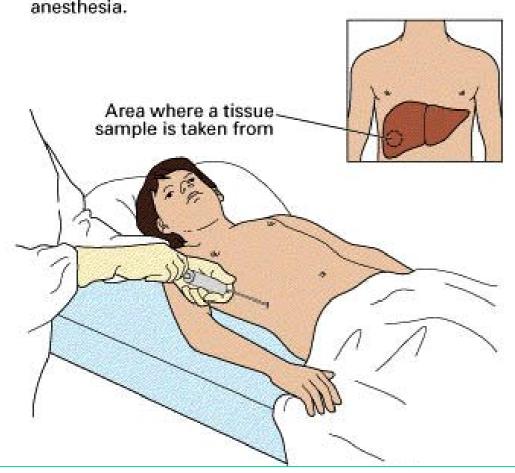
 A hereditary disease in which excessive amounts of iron are absorbed and stored in the body, particularly the liver. Treatment is typically blood removal every week over a two year period. Hereditary Haemochromatosis (HHC) is the most common genetic disorder in the USA.

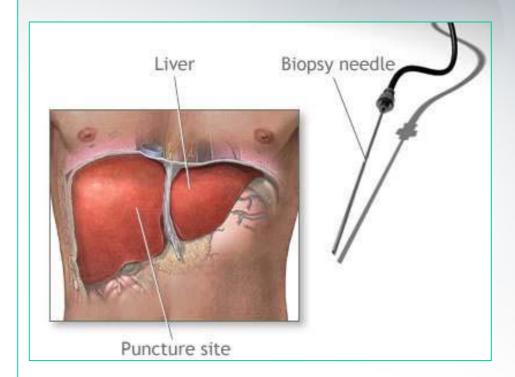
### Adult Onset Diabetes

 Excess iron deposition in the pancreas has been implicated as a cause of adult onset diabetes (affecting an estimated 850,000 Australians or 7.5% of the Australian population).

# Liver Biopsy is the Current "Gold Standard" for Measuring Liver Iron



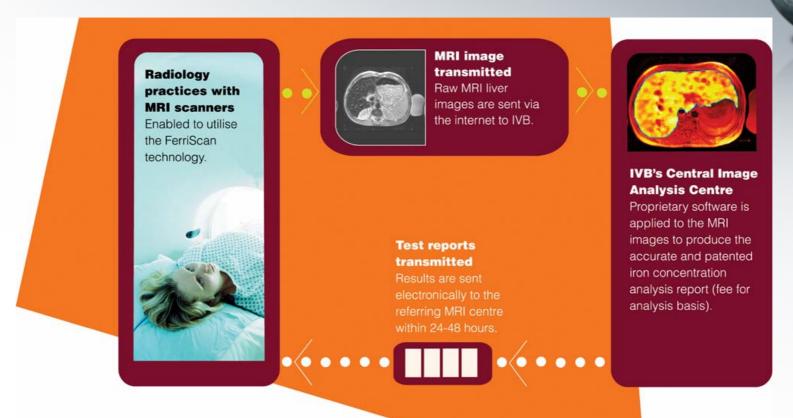




If an effective alternative were available, would patients choose needle biopsy?



# The FerriScan<sup>™</sup> Test Process Leverages Existing MRI Infrastructure



- •Utilizes existing MRI scanners with no new equipment purchases
- •MRI Images processed off-line at a central centre, using IVB proprietary software, optimising quality control and security of the technology
- Provides a clear, unambiguous statement as to the iron loading of the liver, enabling clinicians to apply appropriate treatment
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## Available Globally - Processed Locally



- MRI units can be enabled remotely to incorporate the IVB
   Technology and to perform the FerriScan™ Test (currently 45 units enabled in USA, South America, Europe, The Middle East, Asia & Australia)
- Liver Scans from the MRI (off-line) are sent via the Internet to the FerriScan<sup>™</sup> Analysis Centre in Perth, Western Australia
- FerriScan's proprietary software is applied to the MRI results to produce the iron concentration analysis (approx 30 minutes)
- Results are sent directly to the clinician (turn around time 24 to 48 hours)



## FerriScan™ offers significant benefits over the "gold standard" alternative for iron level tests



### FerriScan<sup>™</sup>

- 1. Non-invasive and painless
- 2. Can be performed regularly if necessary
- 3. No hospital stay
- 4. Can be performed on infants and young children
- 5. Cheaper and more efficient to administer
- 6. Reduced liability to clinicians
- 7. Results assessed at a central location in 24 48 hours
- 8. Accurate measure of liver iron concentration

### **Liver Needle Biopsy**

- 1. Invasive, painful and a potential health risk from bleeding
- 2. Can only be performed about every 18 months
- 3. Short hospital stay
- 4. Cannot be used on infants or young children
- 5. Expensive surgical procedure
- 6. Greater clinician liability risk
- 7. Results can take 7 to 14 days
- 8. Can be inaccurate due to uneven distribution of iron in the liver



# Market Potential: FerriScan ™ / Iron Overload Application



- Iron loading disorders prevalence approximately 1% of developed world population.
- Australia:
  - 125,000 potential patients
- U.K:
  - 500,000 potential patients
- U.S. > 2 million potential patients
- World market potential value for FerriScan<sup>™</sup> service = >\$2b



# Other Direct Applications for the FerriScan™ Technology Platform



### Hepatitis C

- Assessment of liver iron levels to ensure the efficacy of prescribed drug treatments (1 in 100 people in developed countries).
- Adjunct to blood tests in the diagnosis of Hereditary Haemochromatosis (HHC) or to rule out iron overloading.
  - In the USA it is estimated that 67% of HHC patients are misdiagnosed and see an average of three doctors before obtaining a successful diagnosis
- Pharmaceutical industry
  - by pharmaceutical companies in clinical studies (FerriScan™ is already being utilised in a multi-country clinical study).



# FerriScan™ Has The Potential To Reduce Cost & Increase Patient Acceptability

Providers / Reimbursement Groups

Reduced cost of care
Increased patient monitoring and safety

A Liver Biopsy is the Current Gold Standard of Care Only a liver biopsy provides information on possible contributions of iron to the progression of iron overload diseases however, an estimated 60% of patients refuse liver biopsies potentially compromising treatment evaluation

The full cost of the FerriScan procedure is significantly less than a liver biopsy and managing disease progression expenses

Liver Biopsy is usually performed inpatient with a one-day hospitalisation and intensive care if complications arise.

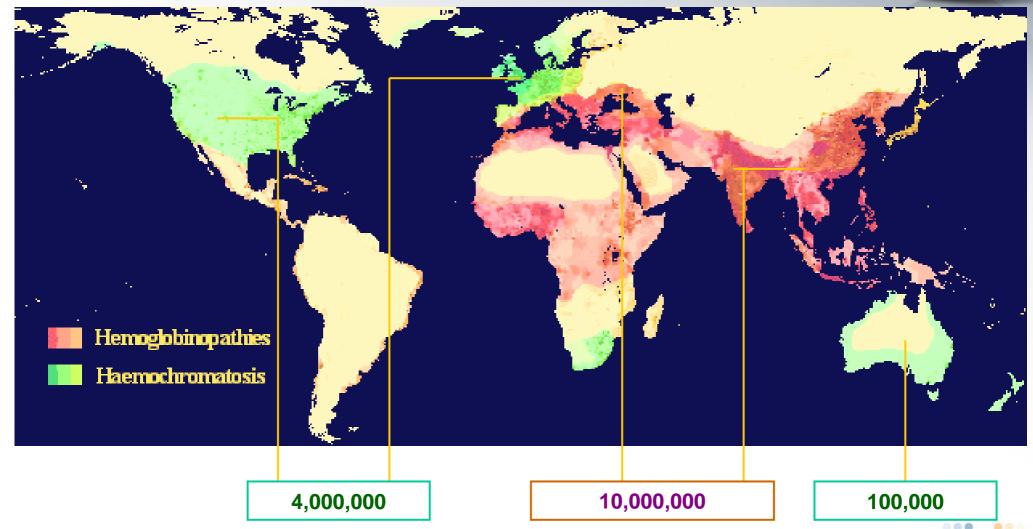
Studies of biopsy complications show that pain is reported by one third of patients, a severe complication (which is lifethreatening or prolongs hospitalisation) occurs in 3 out of 1,000 cases and death in 3 out of 10,000 cases

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## **Distribution Map**

### - Iron Overload Disorders





# FerriScan<sup>™</sup> / Iron Overload Application USA & Australian Market Potential



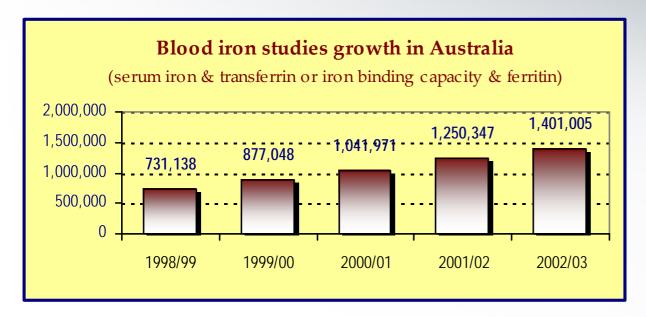
	Total	Australia	USA
Population (USA & AUST)	289,000,000	20,000,000	270,000,000
Prevalence population, iron overload.	2,125,000	125,000	2,000,000
Potential FerriScan™ test volume (@ 2 tests / pt / yr)	4,250,000	250,000	4,000,000
Potential FerriScan™ service fee (AUD)		\$300	\$450
Total market potential AUD\$	\$1,875,000,000	\$75,000,000	\$1,800,000,000

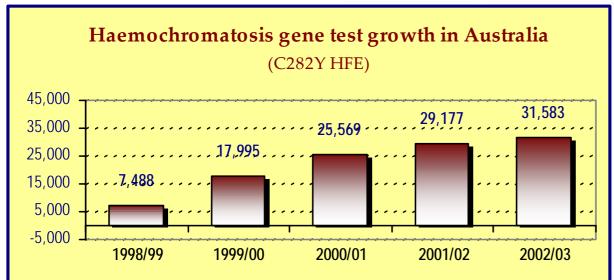
<sup>\*</sup> European market potential based on incidence rates approximates to the USA market



## Growth in Current Diagnostic Tests for Iron Overload







Over a five year consecutive period (1999-2003) financial years), the volume of blood iron studies performed increased by 92%, gene tests specific for haemochromatosis increased by 31% and needle liver biopsies increased by 38%.

Source: Medicare statistics



## Potential FerriScan™ Test Pricing



FerriScan™ Te	est* Biopsy
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**Australia:** 

FerriScan<sup>™</sup> Test (revenue) \$300

MRI Scan \$300

Patient Cost (before reimbursement) \$600 \$1,450

USA: (in AUD\$)

FerriScan<sup>™</sup> Test (revenue) \$450

MRI Scan \$600

Patient Cost (before reimbursement) \$1,050 \$1,750-\$2,000



<sup>\*</sup> Note: Pricing is indicative only at this stage

## FerriScan<sup>™</sup> Indicative Model of Potential Gross Profit

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Based on	<u>Potential</u>		<u>Potential</u>
Test Numbers	Revenue 1	Est. %GM	<b>Gross Profit</b>
50,000	\$15M	50%	\$7.5M
100,000	\$30M	55%	\$16.5M
150,000	\$45M	60%	\$27M
200,000 <sup>2</sup>	\$60M	65%	\$39M

Note: <sup>1</sup> At revenue of AUD\$300 per test

<sup>2 200,000</sup> tests represents 5% of the potential two tests per year for estimated prevalence of 2million US people with iron overload disorders



### **Board of Directors - Resonance Health**



- Hon. Dr Michael Wooldridge (Non-Executive Chairman)
  - Former Federal Minister for Health
- Mr Tony Fitzgerald (Executive Director)
  - Legal and healthcare licensing expertise, 18 years experience in commercialising healthcare and biotech projects
- Dr Christine Bennett (Non-Executive Director)
  - Paediatrician, former partner at KPMG in Health and Life Sciences, 20 years experience in healthcare industry, currently head of Research Australia
- Dr Andrew Walker (Non-Executive Director)
  - Successful commercialisation of a number of healthcare related businesses including the Australian Skin Cancer Clinics
- Advisory Committee
  - Dr Christine Bennett
  - Dr Kris Kowdley



# Capital Structure (As at 1 February 2005)



#### **Shares - Listed**

Listed Shares on issue (RHT)

111,353,585

Market Capitalisation (@ 31 Jan 05 RHT Share price of \$0.24)

\$26.7 M

### **Options – Listed** (exercise prices):

RHTOA Options (\$0.15 to 15 Jan 2007)

44,461,309

RHTOB Options (\$0.40 to 15 Jan 2008)

20,605,194

#### **Unlisted Shares & Options**

Unlisted IVBH Incentive Shares Class F\*

17,333,333

8,000,000

Unlisted Options (\$0.20 or \$0.30)

2,400,000

Unlisted Directors options (\$0.30 or \$0.40 to 7 Jul 2007)

6,666,667

Unlisted Incentive Options Class F\* (\$0.20 or \$0.30)

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(\*subject to milestone achievement)

## Benchmark examples of Diagnostic Imaging companies

Medical Device



**Medical IT Solution** 



Diagnostic Service

Company	Description	Mkt Cap: Cash:	Status
MedicSight (USA)	Medicsight is a medical imaging software company. Its core technology is focused on developing automatic detection and analytical tools in CT and MRI for clinicians to improve their ability to diagnose and treat diseases.	MC: US\$165m Cash: US\$8m	FDA approvals for three products Nov2003, July 2004, Nov 2004. No revenues. Recent distribution agreements.
Vital Images (USA)	Vital Images is a medical imaging software company that is integrating advanced 3D visualization and analysis technology into the everyday clinical environment. Vitrea® 2, rapidly creates interactive three-dimensional images from two-dimensional images generated by standard computed tomography (CT) and magnetic resonance (MR) scanners.	MC: US\$191m Cash: US\$30m	First profit 2002 US\$0.7m 2003 Revenue US\$26m NPAT \$1.4m
ProMedicus (Australia)	Digital radiology software solutions in addition to an e- health network. UK sales, recent Canadian sale, US distribution agreement with Agfa	MC: A\$123 m Cash: A\$10m	Revenues for the financial year ended 30 June 2003 were A\$9.6m; NPAT \$4.4m

## Major Progress Towards Commercialisation of FerriScan™



- 1. TGA listing achieved in Australia December 2004
- 2. European marketing approval CE Mark achieved, January 2005
- 3. US FDA 510(k) clearance received January 2005
- Major radiology partner identified for initial Australian commercial roll-out, commencing 1<sup>st</sup> Half 2005
- Major U.S. radiology partners identified and alliance discussions commenced
- 6. First commercial sales achieved via Novartis contract



## Forward looking statements and risks



This presentation contains forward-looking statements that are based on management's current expectations. These statements may differ materially from actual future events or results due to the range of risks and uncertainties associated with the healthcare technology product development process including manufacturing and licensing, risks inherent in the regulatory approval process applicable in the U.S. and Australia including potential delays in obtaining approvals, market acceptance of products, future financial requirements, general economic conditions, and other risks and uncertainties. There can also be no assurance that competitors will not independently develop similar products or processes that seek to circumvent patents owned or licensed by Resonance Health, or that patents owned or licensed by Resonance Health will provide adequate protection or competitive advantage

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