

Equinox Medical: Pathology Solutions



Committed to enhancing patient outcomes via innovative solutions



We are an Australian owned company, providing targeted molecular diagnostic systems/consumables, Orthopaedic implants/instruments, and Healthcare Technology innovations. Our innovations are locally designed and released to the Australian market. Supported by Australian and global manufacturer partnerships.

Through our strategic 3PL partner, we provide an efficient cost-effective service with local and international delivery networks to Australian metropolitan & regional centres and end-toend product tracking.

EQUIN X



PROF. MICHAEL COOPER, OAM Chairman & Board Director

- Internationally-recognised multidisciplinary surgeon in endometriosis, fertility and advanced endoscopic surgery
- 26-years of experience
- Clinical Associate Professor of Sydney University Department of Obstetrics & Gynaecology

DAVID MITCHELL Director, Business **Development and Sales**

- Over 20-years' experience in marketing and sales management roles in leading pharmaceutical companies
- Profound Experience in Launching Products for Specialist and Hospital Markets, Demonstrating a Comprehensive Understanding of Industry Dynamics



A/PROF. ANDREW LEICESTER Chief Medical Officer

- Renowned Orthopaedic surgeon based in Bowral, with part time duties at Sydney Children's Hospital and Goulburn
- 26-years of experience
- Associate Professor of University of Wollonaona



- 20-years' experience in private equity advisory and investment
- Advised numerous global corporate and private equity funds on M&A and capital raisings
- VP Corporate Development at Neuren Pharmaceuticals



ADAM CROWE Chief Executive Officer

- 35-years' experience in business development & operations
- Specialist in procurement and supply chain
- Delivered sustainable value to major healthcare companies in categories such as prostheses, pathology & radiology, pharmaceuticals & medical consumables



SAMMY DAWSON Product & Workflow Solutions Specialist

- Expertise in Molecular Biology and Advanced Genomic Sequencing Techniques
- Proficient in Product Management and **Development for In-Vitro Diagnostics** (IVDs) and Medical Devices
- Comprehensive Experience in Research & Development (R&D) and Sales within the Life Sciences Industry



- Over a Decade of Extensive Experience in Laboratory Clinical Diagnostics, encompassing Chemistry, Immunology, Hematology, Molecular Diagnostics, Pointof-Care Testing, Workflow IT Solutions, and Quality Control Measures
- Emphasis on Business Development and workflow consulting in Medical Diagnostics

- DINESH SAMARASINGHE
 - Pathology Director



FRANK FAN Chief Financial Officer

- Statistical analysis and financial forecasting Analysing financial data and performance to explore investment opportunities and evaluate performance
- Developing Financial modelling and forecasting development for long- and short-term commercial plans.

Executive Summary

Automated Nucleic Acid Extraction Systems

3

Pre-Filled Extraction Kits

4

NGS Library Prep & Bioinformatics



6

PPE & Recycling Programs

Development Pipeline

"At Equinox Medical, we consistently refine our products through close collaboration with our valued customers from Australia and New Zealand, actively incorporating their feedback into the design and manufacturing stages" - CEO Adam Crowe







Executive Summary

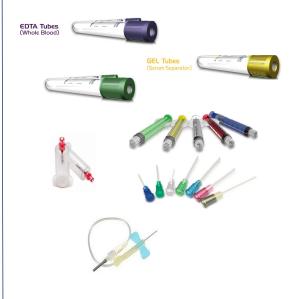
Pathology, Prostheses and PPE/Medical Consumables

EQUIN

Prostheses Pathology Diagnostics Personal Protective Equipment (PPE) Launching innovative solutions Working with manufacturers to Cutting-edge solutions and to the marketplace to impact provide reliable, consistent and support for Orthopaedic and improve Public Health. high-quality consumables for surgeons specialised in Trauma medical institutions. and Spine with an expanding portfolio into other specialties.

Medical Consumables

High-quality medical supplies for laboratories, hospitals and clinics, providing consistent and reliable service and supply.





We have assisted the Healthcare Sector in addressing the COVID pandemic



Equinox Products Supplied in FY20-FY22



2.5m+ COVID tests



250+ trauma implant cases

450,000 gowns



9m+ gloves





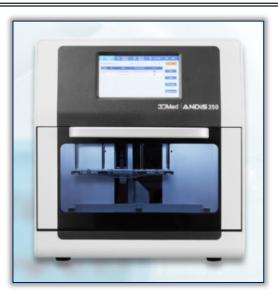


A\$27m+ revenue



Over 10 Australian R&D investments





INNOVATION

REPURPOSING PLASTIC WASTE TO HELP PROTECT OUR ENVIRONMENT

SeamBiosis uses state-of-the-art recycling technology and local manufacturing to strive towards a more sustainable future.





We exclusively distribute 3DMed's Molecular Diagnostic Range in Australia & NZ EQUIN X



Pre-filled DNA/RNA Isolation kits for use on ANDiS Systems

Automated Nucleic Acid Extractions Systems



32A/B Viral RNA Isolation Kit



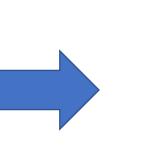
ReadiMag Pathogen Nucleic Acid Isolation Kit



ReadiMag FFPE DNA&RNA Isolation Kit



ReadiMag gDNA Isolation Kit







ANDiS 360

ANDiS 350

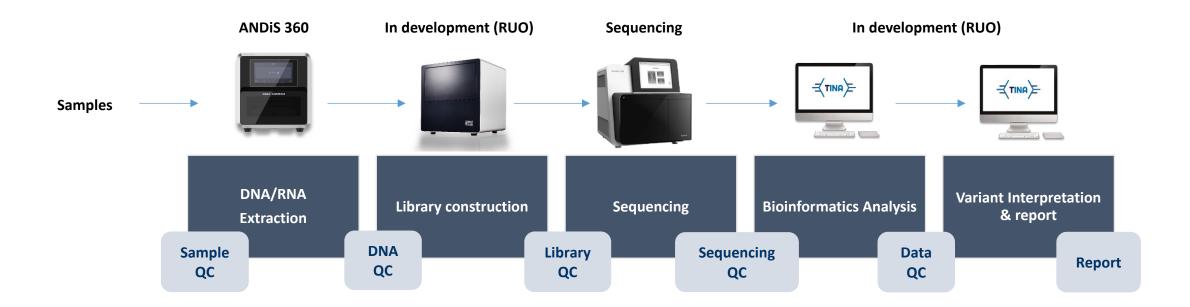






Equinox Medical provides automation through 3DMed's core upstream & downstream support systems to Illumina sequencing so that our customers can meet their increasing demand for NGS.

3DNed







Automated Nucleic Acid Extraction Systems

Fast, Diverse, Traceable DNA/RNA Extraction

ANDIS 360: Automated Nucleic Acid Extraction System



System Specifications

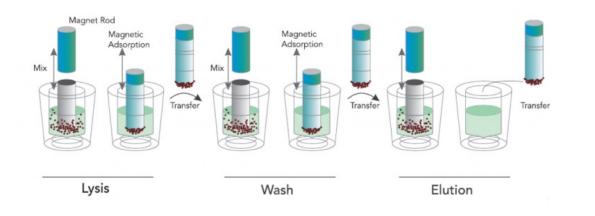
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Sample types	Nasopharyngeal/oropharyngeal swabs, cervical swabs, saliva, sputum, urine, stool, FFPE tissue whole blood.	
Reaction Volume	30µl-12000µl	
Sample Throughput	16/32	
Magnetic beads recovery rate	>95%	
Extraction variation	CV<3%	
Heating temperature	Adjustable from room temperature to 115°C/240°F	
Reagent type	Magnetic bead-based open-source reagents	
Extraction time	8 minutes for Viral RNA	
Well plate	96 deep well plate (large and small volume)	
Operation system	Android system with touch screen	
Memory	Up to 500 programs	
Program management	Add, edit, and delete programs	
UV lamp	Yes	
Light	t Yes	
HEPA Filter	Yes	
Device size	442 × 445 × 490 (mm)	
Device weight	35kg	



EQUIN X



- Applications encompassing infectious diseases, oncology, and reproductive testing.
- b) Utilizing magnetic bead technology, the ANDiS 360 ensures reliable in-vitro diagnostic (IVD) results with reduced hands-on time, ideal for both clinical laboratories and research applications.
- c) The extracted nucleic acids are versatile, compatible with multiple downstream workflows, including quantitative PCR (qPCR), Next-Generation Sequencing (NGS), and microarray analysis.
- d) Moreover, the system supports water quality assessment by employing antibody-coated magnetic beads to effectively capture and measure giardia and cryptosporidium concentrations.



Core Features

Sample types: Nasopharyngeal/oropharyngeal swabs, cervical swabs, saliva, sputum, urine, stool, FFPE tissue whole blood, serum, plasma. Movable plate platform (3-axis movement) UV light and HEPA filter sterilization Large volume (12 mL) plate compatibility Multi-well collection Log record, search and export **USB** connectivity Automatic door Plate detection Magnetic comb cover detection Power failure protection Rotatable screen





ANDIS 350: Automated Nucleic Acid Extraction System



System Specifications		
Sample types	Nasopharyngeal/oropharyngeal swabs, cervical swabs, saliva, sputum, urine, stool, FFPE tissue whole blood.	
Reaction Volume	30µl-1000µl	
Sample Throughput	16/32	
Magnetic beads recovery rate	>95%	
Extraction variation CV<3%		
Heating temperature Adjustable from room temperature to 115°C/240°		
Reagent type Magnetic bead-based open-source reage		
Extraction time	30-60 mins (reagent dependent)	
Well plate	96 deep well plate	
Operation system Android system with touch screen		
Memory	Up to 500 programs	
Program management	Add, edit, and delete programs	
UV lamp	Yes	
Light	Yes	
Device size	401 × 401 × 452 (mm)	
Device weight 35kg		





ANDIS 396: Automated Nucleic Acid Extraction System



System Specifications			
Sample types	Nasopharyngeal/oropharyngeal swabs, cervical swabs, saliva, sputum, urine, stool.		
Reaction Volume	30µl-1000µl		
Sample Throughput	96		
Magnetic beads recovery rate	>95%		
Extraction variation	CV<3%		
Heating temperature	Adjustable from room temperature to 115°C/240°F		
Reagent type	Magnetic bead-based open-source reagents		
Extraction time	30-60 mins (reagent dependent)		
Well plate	96 deep well plate		
Operation system Android system with touch screen			
Memory	Up to 500 programs		
Program management	Add, edit, and delete programs		
UV lamp	Yes		
Light	Yes		
HEPA Filter	Yes		
Device size	600 x 620 x 525 (mm)		
Device weight 39kg			





	ANDIS 360	ANDIS 350	Auto-Pure32A	KingFisher Flex 96/24
Time	8 mins for viral RNA	13 mins	10 mins	10 mins
Sample number	1-32	1-32	1-32	1-96/24
Sample volume	50-12,000uL	30-1000uL	50-1000uL	50-1000uL
Sample type	Swabs (Nasopharyngeal, Oropharyngeal, Cervical), Saliva, Sputum, Tissue FFPE, WBC, Urine	Swabs (Nasopharyngeal, Oropharyngeal, Cervical), Saliva, Sputum, Tissue FFPE	Extraction kit dependent	Extraction kit dependent
Bead collection rate	>95%	>95%	>95%	>95%
Coefficient of Variation	<2%	<2%	<5%	
Barcode scanning	No	No	No	No
Temperature control range	RT-120°C	RT-120°C	RT-120°C	RT-120°C
Port	USB and Ethernet	USB	USB, WiFi, and Ethernet	USB and RS-232C
Weight	35kg	35kg	28kg	28kg
Size (mm)	442×445×490	400×400×450	400×470×450	680×600×380
Contamination control	HEPA and UV	UV	UV	UV







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Oncology, Fertility & Infectious Diseases

Broad Range of Extraction Kits for Respiratory, Oncology & Fertility



Extraction Kit	32A Viral RNA Extraction Kit	Pathogen Nucleic Acid Extraction Kit	ReadiMag FFPE RNA/DNA Extraction Kit	ReadiMag gDNA Extraction Kit
System Compatibility	ANDiS 350/360	ANDiS 350/360	ANDiS 350/360	ANDiS 360
Sample type	Nasopharyngeal, Oropharyngeal, Saliva, Cervical	Bronchoalveolar lavage fluid, Sputum	FFPE tissue	Saliva, whole blood and buffy coat
Run time	<15 minutes (Dependant on sample types and instrument used)	<15 minutes (Dependant on sample types and instrument used)	45 minutes	50 minutes
Sample input volume	200-400µL	<400µL	5-40µm	<200µL
Elution volume	100µL	100µL	50µL	50µL



- 3DMed's gDNA extraction kit features pre-filled reagent plates, that simplify the extraction protocol by reducing the need for manual handling
- Application for the potential extraction of gDNA for preimplantation screening and reproductive carrier screening



ReadiMag gDNA Extraction Kit			
Pack size 64 tests/kit			
Sample type	Blood, saliva, semen		
Processing time	50 minutes		
Sample volume	200µL		
Elution volume	50µL		
System compatibility	ANDIS 360		
Areas of application	Male Fertility, NGS (cardiovascular + other)		



EQUIN X



- **23** *Strands* is dedicated to providing personalised healthcare solutions to academic and clinical practices
- By combining Whole Genome Sequencing (WGS) with Artificial Intelligence, they aim to gain a deeper understanding of the genetic basis of idiopathic male infertility
- Equinox and 23 Strands are collaborating on a research project to better understand the genetic causes of idiopathic infertility and subsequently improve outcomes.

- The initial trial will use the ANDiS 360 Extraction System and gDNA Kits to extract DNA from sperm samples.
- Subsequent trials will use the ANDIS 360 Extraction System and cfDNA Kits to extract DNA from blood samples.







Locally Manufactured PPE, Offshore Manufacture Distribution + Recycling Program

Equinox distributes PPE from local and offshore manufacturers

 Surgical & Isolation Gowns
 Caps & Berets
 Sterilisation Wrap
 Adult & Child Masks
 Level 2 & 3 N95/P2 Particulate Respirators

 Image: Caps & Derice Caps & Derice





EQUIN

We Support Our Local Communities and Nations with PPE





Aiding Lismore Flood Relief Effort

Equinox Medical contributed to emergency response and disaster recovery with two PPE shipments, including 64 cartons of protective suits. In collaboration with Lismore City Council and Resilient Lismore, we donated an additional 34 cartons of Level 3 surgical gowns to Lismore Hospitals.



Donating PPE to Tongan Earthquake Relief Efforts

Dr. Andrew Leicester, representing Equinox Medical, received a recognition certificate from the Princess of Tonga for our contributions to the Tongan Earthquake Disaster Relief Program. Equinox Medical donated over 40,000 essential PPE items, including adult and child N95 respirators, surgical masks, gowns, isolation gowns, protective suits, and nitrile gloves, to support the ongoing relief efforts after the February 2022 earthquakes.





Development Pipeline (RUO)

Products currently in development and pending TGA Approval





Liquid Handling Automation Systems





ANDiS 3100

Automated Sample preparation Workstation*

Automated workflow

 Automates all capping/uncapping, liquid handling and barcode scanning

Increased productivity

Reduce manual sample
 preparing workload by 90%

Improved safety

- Closed-door system with HEPA and UV light
- Laminar flow
- Negative pressure

1 Scan barcode		
	Easy Sample	
Uncap tube	Contraction of Contra	
3 Aliquot sample		
4 Set up		
mix		
S Recap tube		

	System Specifications
Throughput	32 samples / 37 mins 1,247 samples / 24 hours
	50μL - 1000μL
Pipetting	Pipetting range: 10μL – 200 μL Pipetting precision: 10μL: CV ≤ 2% 200μL: CV ≤ 5% Pipetting accuracy: 10μL: CV ≤ -10% – +10% 200μL: CV ≤ -3% – +3%
Sample tube compatibility	5mL/10mL sample tubes with standard screw cap
Contamination Control	Built-in HEPA and UV light
Dimensions	1100 x 680 x 763 (mm)
OR code scanning	Built-in Barcode scanner
Operation environment	Temperature: 10°C - 40°C Humidity: 30% – 75% RH



ANDiS 3150

Automated Sample preparation Workstation*

Automated workflow

 Automates all capping/uncapping, liquid handling and barcode scanning

Increased productivity

- Reduce manual sample
 preparing workload by 90%
- Process >10000 samples / day

Improved safety

- Closed-door system with HEPA and UV light
- Laminar flow
- Negative pressure

Scan barcode	3DMed ANDIS 3150
Uncap tube	
Set up mix 5 5 7 8 8 8 8 8 8 8 8 8 8 8 9 8 8 8 8 9 8 8 9 8 8 9 8 9 8 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 9 8 9 9 8 9	

	System Specifications	
Throughput96 samples / 12 mins10,000 samples / 24 hours		
	50μL - 1000μL	
Pipetting	Pipetting range: 10μL – 200 μL Pipetting precision: 10μL: CV ≤ 2% 200μL: CV ≤ 5% Pipetting accuracy: 10μL: CV ≤ -10% – +10% 200μL: CV ≤ -3% – +3%	
Sample tube compatibility	5mL/10mL sample tubes with standard screw cap	
Contamination Control	Built-in HEPA and UV light	
Dimensions	1200 x 706 x 1780 (mm)	
OR code scanning	Built-in Barcode scanner	
Operation environment	Temperature: 10°C - 40°C Humidity: 30% – 75% RH	



ANDiS 3200

Automated Sample preparation Workstation*

Automated workflow

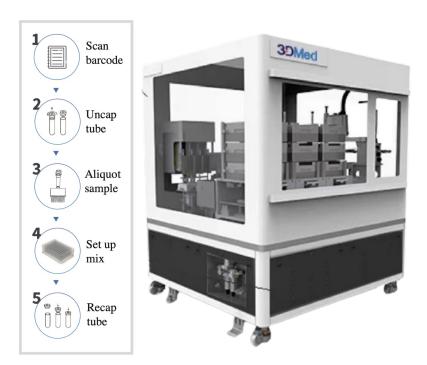
 Automates all capping/uncapping, liquid handling and barcode scanning

Increased productivity

- Reduce manual sample preparing workload by 90%
- Process >10000 samples / day

Improved safety

- Closed-door system with HEPA and UV light
- Negative pressure



	System Specifications
Throughput	96 samples / 12 mins 10,000 samples / 24 hours
Pipetting	TBA
Sample tube compatibility	5mL/10mL sample tubes with standard screw cap
Contamination Control	Built-in HEPA, UV light
Dimensions	1500 x 1400 x 1910 (mm)
OR code scanning	Built-in Barcode scanner
Operation environment	Temperature: 10°C - 40°C Humidity: 30% – 75% RH



Nucleic Acid Extraction Kits and Protocols



Expanded Extraction Kit Portfolio



Extraction Kit	cfDNA Extraction Kit	ReadiMag FFPE DNA Extraction Kit	ReadiMag FFPE RNA Extraction Kit
System Compatibility	ANDIS 360	ANDiS 350/360	ANDiS 350/360
	BONNEL BESER Descent and		
Sample type	Serum, plasma	FFPE tissue	FFPE tissue
Run time	45 minutes	45 minutes	45 minutes
Sample input volume	2000-4000µL	5-40µm	5-40µm
Elution volume	50µL	50µL	50µL

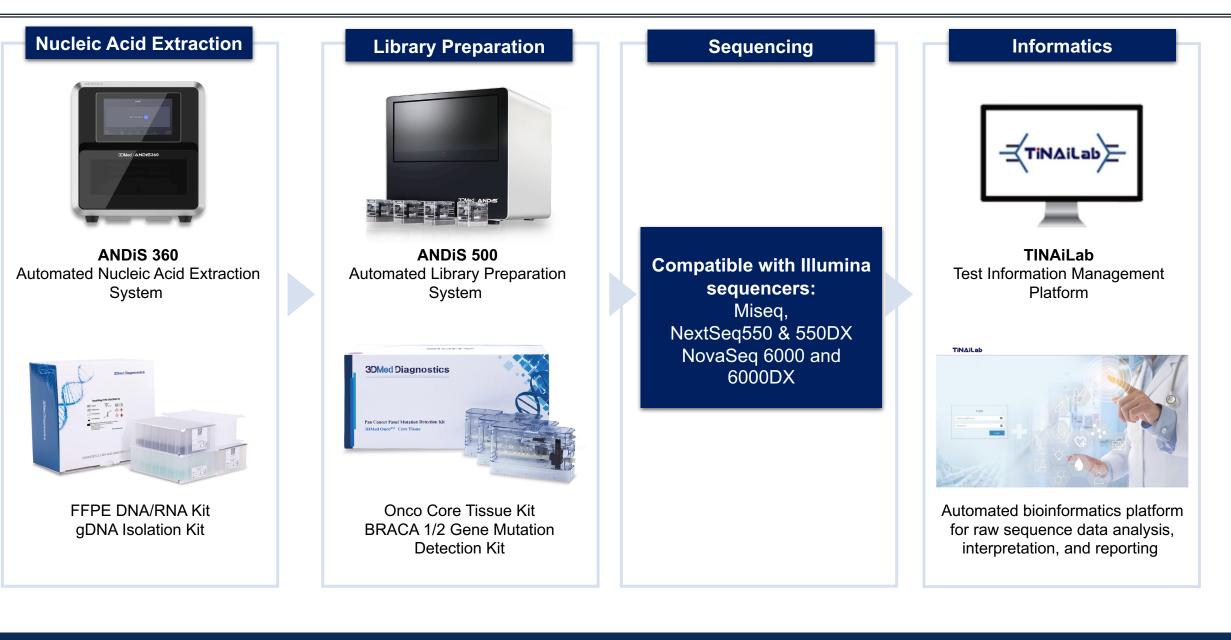




Automated NGS Library Preparation & Bioinformatics for Oncology

- ANDIS 500 Library Preparation System
- Library Preparation Kits for Targeted Panel NGS
 - Onco Core Tissue Kit (35 Gene + MSI)
 - BRCA1/2 Gene Mutation Detection
- TINA NGS Bioinformatics & Report Generation

ANDIS 360 & ANDIS 500 combine to automate NGS Workflow



ANDiS 500 Automated NGS Library Preparation System



ANDIS 500

Enclosed Single Specimen Library Preparation System

Reduced Personnel Requirement

 Only one operator required for the 3-step ANDiS process

Reduced Contamination Risk

 Low contamination risk due to the closed cartridge, one lid opening and one solution transfer

Flexibility

Fully independent workflow of each of the 4 cartridges



Currently available for Research Use Only • Screening and variant identification for Non-Small Cell Lung Cancer, Colorectal Cancer, Gastrointestinal Stromal Tumours, Solid Tumours, Ovarian Cancer and Breast Cancer.

System Specifications	
Throughput	1-4 samples
Processing time	≥ 3.5 hours
Input volume	> 10ng
Reaction volume	20µL – 20-µL
Kit compatibility	3DMed Onco [™] Core Tissue Kit (35 gene + MSI) 3DMed BRCA1/2 Mutation Gene Detection Kit
Dimensions	410 × 430 × 420 (mm)

- The ANDiS 500 is a fully automated enclosed single-specimen system that automates the pipetting, amplification, and purification steps involved in library preparation with the click of one button
- The pre-filled, enclosed cartridges further simplify the complex library construction process whilst significantly reducing the risk of cross-contamination





The 3DMed Onco[™] Core Tissue Kit is an automated oncology library construction kit for NGS for the detection of single nucleotide variants (SNVs), deletion alterations (InDels), gene fusions (Fusions) and microsatellite instability (MSI) using DNA and RNA isolated from FFPE tumour tissue specimens.



	3DMed Onco™ Core Tissue Kit
Cancer type	Solid Tumours
Sample type	DNA and RNA from FFPE tissue (tumour cell content ≥20%)
Input volume	DNA 10-50ng, RNA 10-50ng
Gene target	35 genes + MSI
Performance characteristics	2% VAF for SNV and Indels in 25ng DNA, 100copies for fusion in 25ng RNA
Compatible Sequencer	Illumina (NextSeq550, Miseq)
Data	NextSeq, 0.66G / Miseq, 0.66G
ТАТ	3.5 hours

The test results are intended for use as a clinical reference and should not be used as the sole basis for a cancer diagnosis. The clinical attending physician should consider the test results alongside the patient's clinical history, symptoms, and other diagnostic information when determining the appropriate treatment plan.



The 3DMed BRCA1 and BRCA2 Gene Mutation Detection Kit is an automated breast cancer library construction kit for next-generation sequencing (NGS) to detect BRCA1 and BRCA2 alterations in peripheral blood samples from ovarian or breast cancer patients. The assay targets all coding exons and intron/exon junctions of BRCA1 and BRCA2 genes.



	BRCA1 and BRCA2 Gene Mutation Detection Kit
Cancer type	Germline Ovarian Cancer & Breast Cancer
Sample type	Peripheral blood samples
Input volume	≥ 100ng
Gene target	All coding exon and intron/exon junctions of BRCA 1 & BRCA 2 genes (± 20 bp)
Performance characteristics	Human Rnase P (Endogenous)
Compatible Sequencer	Illumina (Miseq)
Data	0.05G
TAT	5.5 hours

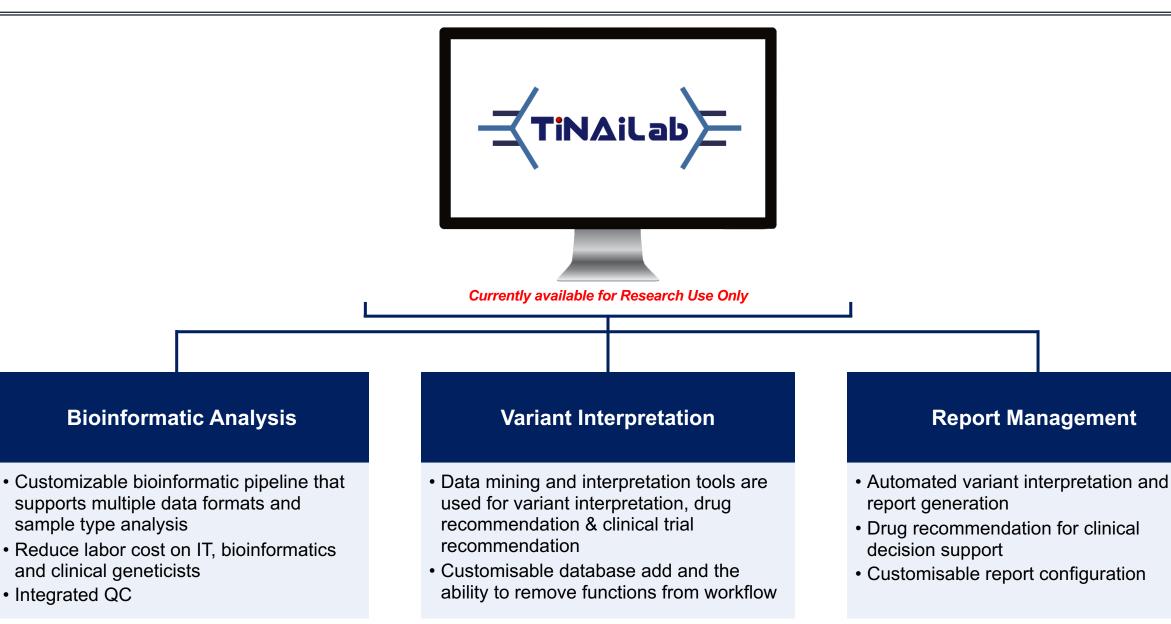
The test results are intended for use as a clinical reference and should not be used as the sole basis for a diagnosis of ovarian or breast cancer. The clinical attending physician should consider the test results alongside the patient's clinical history, symptoms, and other diagnostic information when determining the appropriate treatment plan.





Bioinformatics, Database and Report Configuration





DNA Nudge – a revolutionary PCR technology

The DNA test panels identify specific SNPs within your genes that are associated with your predisposition to develop certain health conditions. We only include genes that have high quality research and well documented evidence behind them.

"We don't look at genes related to metabolism or anything to do with diet, all we say is 'if you've got the genes for type two diabetes, for instance, then saturated fat and sugar are your issues' – that's what a clinician or endocrinologist would tell you. These are very carefully-selected genetic markers from population studies with hundreds of thousands of people." - Chris Toumazou CEO

- 1) Choose Your Nudge
- 2) Return a cheek swab
- 3) Receive DNA report directly onto the DnaNudge App
- 4) Scan your smartphone while shopping to personalise your purchases based on your DNA



https://www.dnanudge.com/







Nutrition Nudge

In this personalised report, we analyse 8 nutrition-related genetic traits and link these to macronutrients in the food we eat, enabling you to make the healthiest choices for you every time you shop - simply by scanning the product barcode to see if it's red or green for you.

Skincare Nudge

In this personalised report, we analyse 8 skin-related genetic traits and link these to ingredients in the facial skincare we use, enabling you to make the best choices for your skin every time you shop - simply by scanning the product barcode to see if it's red or green for you.

Active Nudge

For ultimate personalisation of your DNA test results, your Active Nudge will constantly update your DNA-based recommendations in real time, monitoring your inactivity levels throughout the day and relating these back to your available GREEN product choices.



EQUIN

SeamBiosis will provide a Local PPE Recycling Solution





Product Recycling: Disposed PPE (PET) waste is treated using proprietary technology, resulting in sterile, purified raw-block base material.

further and then extruded into

Cellulose is drie into a powder.

Raw recycled polymer blocks are supplied to OzHealth Plus, mixed with local virgin SMS material for medical-grade final products. As scale increases, blended recycled product costs will significantly decrease.



Fabric Production: OzHealth Plus utilizes raw blocks to create medical-grade SMS (spunbonded, meltblown fabric) and composite non-woven materials.

Disposed garments are collected from hospitals and delivered to BlockTexx





SEAM BIOSIS

Fabrics are distributed to thread apparel for garment production



Collection & Sterilization: Gather and distribute discarded hospital garments, and redistribute treated, recycled garments.



State health departments have secured long-term contracts for locally made gowns. With guaranteed future orders, Equinox can invest in local raw materials and gown recycling technology.





PPE Manufacturing: Ultrasonic welders produce top-quality surgical gowns, providing advanced manufacturing jobs.



Distributed by Equinox Medical

Equinox MDS Demo Lab at The University of Sydney







We're thrilled to announce the arrival of our latest cutting-edge NGS Sequencing Support Systems at our Molecular **D**iagnostics & **S**equencing Demo Lab.

All our systems in the lab are designed to make your molecular diagnostics and sequencing work easier, faster, and more efficient.



Automated Sample Preparation System (RUO Only)



ANDIS 360 Nucleic Acid Extraction System



NGS Library Preparation System (RUO Only)



End-to-end NGS Bioinformatics solution (RUO Only)

