Melbourne Genomics
Health Alliance

Paving the way for genomic medicine

Annual Report 2021

Alliance members

The Royal Melbourne Hospital
The Royal Children's Hospital Melbourne
The University of Melbourne
WEHI brighter together
murdoch children's research institute
CSIRO
agrf
Peter Mac Peter MacCallum Cancer Centre Victoria Australia
Austin Health
Monash Health

Supported by

Victoria State Government

Contents

Turning global knowledge into individual care

Genomic medicine maps the big data in our cells, to diagnose illness and find the right way to treat it.

In 2013, leading Victorian hospitals, research and academic institutions joined forces to create the Melbourne Genomics Health Alliance.

The Alliance first sought to establish when genomics could enable better care for Victorian patients, and when it could not. Our clinical studies provided a wealth of evidence to inform healthcare.

Meanwhile we laid the foundations for genomic medicine: training clinicians to interpret tests, studying the economic impact on the health system, and building a shared system for clinical genomic testing.

Now we are working with the Victorian Government to embed genomics in the state's health system. This will ultimately make genomic medicine a reality for every Victorian who needs it.

Results from our clinical projects (2014-20)

- 19x more patients received an informative result from genomic testing than from usual care
- 42% of cancer and rare disease patients received an informative result. 1 in 2 of those patients had a change in care.
- Rapid genomic sequencing delivered results up to 10x faster for critically ill babies
- 5x more patients received a diagnosis through genomic testing
- Finding the cause of severe hearing loss in babies is tripled with genomic testing
- 5x more patients with immunological conditions received a diagnosis through genomic testing
- 33% more superbug transmissions in hospitals were detected through genomic sequencing of microbes

Full results at **melbournegenomics.org.au**

Priorities for 2021

- Establish our new program with Alliance members, supported by the Victorian Government through extension of our Collaboration Agreement and execution of a new funding agreement
- Establish teams across Alliance members to plan and deliver statewide and clinical change projects
- Advance the system and service capabilities of GenoVic, and plan for long-term sustainability
- Commence development of a 2025 strategy for the delivery and sustainability of genomic education and training
- Develop new education content for clinicians and other health professionals, and maximise the value of our education and training materials

Report from the Chair of the Board

Catherine Walter AM

It's often said that it takes 17 years for research innovation to become clinical practice.

In fact, it's been said so often that a study was done into where that number came from in the first place![1]

So, it is commonly accepted that healthcare is slow to change. This is what makes the work of the Melbourne Genomics Health Alliance so important.

On 1 May 2021, the Alliance began a new four-year program, with $45M funding in total from the Victorian Government and our 10 members. The program aims to embed genomic medicine in our health system. It is all about transformative yet sustainable change.

Previously, the Alliance focussed on providing the evidence for change. Its members led clinical studies that showed when and how genomics could save and improve Victorian lives.

Now it's time to focus on the conditions that spark and sustain change.

This means supporting hospitals with the frameworks and tools to introduce genomics. Determining optimal models for accessing genomic testing.

Partnering with education providers to equip the current and emerging workforce. Making national and international connections. And ensuring that genomic data isn't locked away in silos, but available to inform better care for Victorians and future research discoveries.

This will be our biggest challenge yet.

On behalf of the Alliance, I thank the Victorian Government, and in particular Minister Jaala Pulford, for championing genomic medicine. I also thank each member of the Alliance, especially WEHI and the Murdoch Children's Research Institute for hosting the program team. Finally, I am grateful to my colleagues on the Board for their leadership, strategic direction and continuing commitment.

1. Morris, Zoë Slote et al. "The answer is 17 years, what is the question: understanding time lags in translational research." Journal of the Royal Society of Medicine vol. 104,12 (2011): 510-20. doi:10.1258/jrsm.2011.110180

Report from the Executive Director

Professor Clara Gaff

Genomic sequencing became a household term in the COVID-19 pandemic.

Every day, press conferences referred to the use of genomics to track the spread of new variants. The number of Google searches for 'What is a genomic test?' soared.

Ironically, COVID-19 made our mission easier to explain and harder to implement.

Our member organisations were on the frontlines of Victoria's response: from research on the health and social impacts of COVID-19, to treating patients and rolling out testing and vaccination programs – all the while striving to maintain everyday essential healthcare.

We had to slow the pace of our ambitious new program. In doing so, we strengthened the foundations for its success.

We brought new expertise to the program: in **implementation science**, to ensure our change model was based on the best evidence; in **project management**, to keep complex streams of work moving and measurable; in **software development**, to mature our clinical system and the service it provides; and in **communications**, to engage a wider set of stakeholders than ever.

We articulated the benefits that genomics would bring to Victoria and plotted the path to achieving them, in our program logic (see p9).

We determined how to measure our progress, evaluate our impact and capture lessons learnt along the way.

Meanwhile, we laid the groundwork to expand the use of genomics in paediatric medicine, oncology and the management of superbugs. More than 250 Victorian professionals gained knowledge and confidence in genomics through our education programs. Ten new papers were published. And GenoVic, our clinical system for genomics, gained new users and enabled accredited cancer genomic testing.

Victoria can be an international leader in the use of genomics, and it's heartening to see how many healthcare leaders and clinicians are committed to this goal. I am grateful to everyone involved in the Alliance's work – and some of their names are listed on page 17 of this report.

Our collective effort will help more Victorians find answers, get better care and live healthier lives.

Towards Victoria's genomic future

Our program is closely aligned to Victoria's vision for innovation and precision healthcare.

The Victorian Government has long championed the use of genomics in diagnosis and care.[2] Its priorities include providing equitable access to genomic services; reducing superbugs and improving detection of infectious disease; ensuring the workforce is trained and confident in using genomic information; and ensuring Victorians are comfortable with how their personal genomic information is stored and used.

The Government's priorities are reflected in our program logic (p9), which makes the connection between the work we are doing and the benefits it brings to Victoria.

The Victorian Government will contribute $35M to the Melbourne Genomics Health Alliance from 2021-25. Victoria's *Innovation Statement* (2021) describes this as investment in a growth sector underpinned by technology and innovation.[3]

This funding recognises that genomics will not only transform patient care; it will create new opportunities in technology, investment, education and jobs.

19x more patients

Received an informative result from genomic testing than from usual care (2014-2020). This finding informed Victoria's ongoing investment in genomics.

Above image: The Hon Jaala Pulford, Minister for Innovation, Medical Research and the Digital Economy, spoke at the launch of Melbourne Genomics' Controlling Superbugs project at Austin Health. Acting Premier James Merlino, Chief Health Officer Prof Brett Sutton, and lead clinician Dr Norelle Sherry were also at the event.

2. State of Victoria, Department of Health and Human Services, Genetic and Genomic Healthcare in Victoria (2021) https://www.health.vic.gov.au/sites/default/files/migrated/files/collections/policies-and-guidelines/g/genetic-and-genomic-healthcare-in-victoria-2021.pdf
3. Innovation Victoria, https://djpr.vic.gov.au/__data/assets/pdf_file/0004/2039458/Innovation-Statement.pdf

Making a lasting impact

Melbourne Genomics studies provided impetus for national projects, and informed the progress of genomics in other countries. Our member agencies also upgraded their own genomics capacity.

Leading the way in federal genomics grants

Melbourne Genomics member agencies attracted over $27M in funding through the Australian Government's Genomics Health Futures Mission. Four of the successful projects (totalling $12M) build on earlier Melbourne Genomics studies.

- **Genomics in bone marrow failure** – The success of the Melbourne Genomics Bone Marrow Failure Clinical Project led to $3M in funding for a national study led by The University of Melbourne, which will use multimodal genomics in patients with inherited bone marrow failure and related disorders. Our GenoVic clinical system will support testing and make data available for research.
- **Australian Undiagnosed Diseases Network** – The network, which grew from the Melbourne Genomics Childhood Syndromes Project, received $3M for an internationally-networked national approach for transforming diagnosis for people with rare diseases. This will be led by the Murdoch Children's Research Institute (MCRI).
- **KidGen National Kidney Genomics Program** – KidGen received $3M for research into improving genomic outcomes for Australian families with genetic kidney disease, building on the Melbourne Genomics Genetic Kidney Disease Clinical Project. James Cook University will lead this research.
- **National large-scale automated reanalysis program** – This $3M program builds on the Melbourne Genomics Complex Care Project and our follow-up study to reanalyse genomic data, which saw more children receive a diagnosis. Led by MCRI, the new national program will automate and scale up the reanalysis process.

Increasing public funding for genomic tests

The Medical Services Advisory Committee has recommended that genomic testing for heritable kidney disease and cardiomyopathies be included on the Medicare Benefits Schedule. The applications cited data and outcomes from the Melbourne Genomics Genetic Kidney Disease and Dilated Cardiomyopathy clinical projects respectively. If approved by the Federal Minister for Health, genomic testing for these conditions will qualify for Medicare funding.

Supporting nationwide genomic testing for babies and children

The Acute Care Genomics study, led by Australian Genomics, pioneered a national approach to rapid genomic testing for babies and children in intensive care. It now has an additional $5M through the Medical Research Future Fund to drive national expansion.

This study grew out of a Melbourne Genomics project, and Melbourne Genomics team members continue to support education for health professionals involved in delivering acute care genomics, family-friendly test reports, and a sub-study on providing additional findings in genomic tests.

Advising other countries

The Hong Kong Genome Institute aims to sequence up to 50,000 genomes in the next six years. The Institute sought advice from Melbourne Genomics on managing clinical projects, developing its genomic workforce, and managing genomic data.

Executive Director Professor Clara Gaff contributes to two Genome Canada project committees, which aim to get genomics into the Canadian health system.

Finally, Melbourne Genomics staff members presented at multiple international genomics conferences (see p19), ensuring that models developed in Victoria can inform the growth of the genomics sector worldwide.

Opening specialist genomics facilities

Genomics has been thriving in Victoria since the Melbourne Genomics Health Alliance was formed in 2013. Several Alliance members have their own dedicated genomics facilities, supported by the Victorian Government.

In 2021, **WEHI** established an Advanced Genomics Facility. Led by Dr Rory Bowden, the facility expands WEHI's genomics capabilities, including genomic sequencing and cellular genomics. Meanwhile, **The University of Melbourne** partnered with Illumina to create The Advanced Genomics Collaboration, lifting local genomics research and trials to global scale and quality.

Our program logic

GOALS

Genomics informs precision care for Victorian patients

Genomics is sustainably embedded in the Victorian health system

Victoria is the place for genomic innovation, investment and jobs

BENEFITS TO VICTORIA

- Patients have timely and equitable access to genomic testing
- Genomics enables health system efficiencies and savings
- Victoria attracts and retains a highly skilled genomics workforce

IMPACT OF OUR WORK

- Clinical, diagnostic and data science professionals are equipped to practise genomics
- More Victorian health services are ready and able to offer genomic
- Genomics is used more widely in clinical care
- GenoVic clinical system supports the provision of Victorian genomic health investigations
- Victoria is a national leader in the use and management of genomic information

INTERMEDIATE OUTCOMES

- Equitable use of genomic tests is enabled
- Victoria has embedded pathways to build the expertise of the workforce

- GenoVic clinical system is adopted as critical enabling infrastructure
- Genomic data is used for clinical care and research in an ethical, trusted and secure way

WHAT WE'LL DO

Genomics in practice

Projects that guide the implementation of genomics in healthcare

Genomics workforce

Education and training for the current and emerging workforce

Genomic information management

Implementing a shared clinical system for genomic testing and data use

Progress towards outcomes

Outcome #1: Equitable use of genomic tests is enabled

The journey so far

Melbourne Genomics conducted 11 clinical projects from 2014-2020, to establish when genomics would provide better results than usual care.

Three of these projects will be expanded across Victoria, to understand how best to provide genomic services in different clinical contexts.

- **Inherited conditions of children:** Increasing the use of genomic testing for children with suspected genetic conditions
- **Cancer:** Using genomics to inform targeted therapy for solid cancers
- **Superbugs:** Sequencing antibiotic-resistant microbes to track and prevent their spread

Our previous program identified a clear need for frameworks, models and tools that will support clinicians and other decision-makers to introduce genomics.

Progress in 2021

Understanding barriers to use of funded exome testing

Paediatricians can now use the Medical Benefits Schedule to order whole exome tests for patients with suspected complex genetic conditions. Despite these tests being funded, they are not yet widely used by Victorian paediatricians.

The Paediatrics Project team interviewed 26 paediatricians across Victoria to understand what helps – or stops – them using genomic testing in routine paediatric practice. Analysis of these interviews is identifying strategies to improve access for Victorian children.

Finding the best ways for cancer patients to access genomic testing

Oncologists in Victoria can only access genomic testing for their patients through commercial providers. These providers do not usually assist in interpretation or use of test results. This means that genomic testing for cancer is largely confined to metropolitan academic centres.

Our statewide cancer project explores how best to offer complex genomic sequencing to cancer patients across Victoria.

42% of cancer and rare disease patients received an informative result from genomic testing (2014-2020). **1 in 2 of those patients** had a change in care because of it. These findings informed our paediatric and cancer statewide projects.

Starting in late 2021, focus groups were held with oncologists from regional and metropolitan areas to understand preferred models of care and how they might be implemented.

Towards a statewide approach to superbugs

Before COVID-19, our superbugs clinical project demonstrated the value of genomic sequencing in guiding hospitals to stop the spread of superbugs.

The next step is to determine the best ways for Victorian hospitals to access rapid results from genomic sequencing of superbugs. This work will be led by Austin Health and The Peter Doherty Institute for Infection and Immunity, with several participating hospitals. Ethics approval from The University of Melbourne is also in place to create a genomic snapshot of pathogens of interest across Victoria.

Funding good ideas to learn from

It's not enough to prove the benefit of genomics. We need to show how it can be adopted and used most effectively by Victorian health providers.

That's why we will fund three projects that will make it easier for hospitals to include genomics in patient care. Initiated by clinicians, these projects will road-test innovative solutions to real-world challenges – resulting in tools and approaches that other hospitals can draw upon.

The scientific protocol and an overarching ethics application for these projects have been submitted and approved.

What's next?

- Commencing the statewide cancer project in six Victorian hospitals
- Undertaking a statewide snapshot of pathogens of interest (superbugs) across Victorian hospitals
- Selecting three clinical change projects for funding, from expressions of interest received
- Using insights from paediatrician interviews to inform strategies that ensure equitable access to genomic testing for Victorian families

A first-of-its-kind study in *Kidney International Reports* found that genomic testing for children with glomerular disease is cost-saving. It can prevent invasive tests like biopsies. (Sep 2021)

33% more superbug transmissions were detected through our first Controlling Superbugs project (2017-2019). Guidelines on using genomics to stop hospital superbugs were published in The Lancet Microbe, to inform worldwide efforts to detect outbreaks in real time. (Aug 2021)

Our study in the *American Journal of Medical Ethics* identified how the results of genomic testing were empowering for parents whose children had congenital hearing loss. (June 2021)

Outcome #2: Embedded pathways to build workforce expertise

The journey so far

Victoria's genomic workforce spans many professions. It includes the clinicians who use genomic testing in patient care, the genetic counsellors who help patients understand their diagnosis, the scientists who conduct the tests, and the data scientists who make genomic testing possible.

Melbourne Genomics members have used structured education and online learning to build the skills of clinicians, scientists and students alike. The next challenge is to ensure an enduring mix of structured and unstructured learning opportunities, both in education settings and the workplace.

Progress in 2021

Building confidence in using genomics

A total of 251 health professionals attended our workshops or enrolled in our online training modules. An additional 272 people accessed educational materials developed by Melbourne Genomics through either the University of Melbourne, or the Australian Genomics Acute Care Genomics program.

Training paediatricians and oncologists

Our education team worked with the Victorian Clinical Genetics Service to hold introductory webinars for paediatricians, explaining the value and utility of MBS-funded exome testing. The webinars were highly popular, attracting 158 participants. More webinars will be offered in 2022.

In 2021, **523 health professionals** gained knowledge and confidence in genomics through our workshops and training modules, or by accessing educational materials we developed.

We developed and delivered two online short courses for adult and paediatric oncologists, and ran a workshop for the Australia and New Zealand Children's Haematology/Oncology Group annual meeting in June 2021.

Providing online crash courses

Our website learn-genomics.org.au continues to give clinicians and community members an introduction to the world of genomics. New modules like Genomics – a beginner's guide and Counselling and consent for genomic testing were added this year.

Making specialist subjects sustainable

Variant interpretation is the detective work undertaken to establish whether a particular gene variant can explain a patient's condition. After developing variant interpretation subjects for The University of Melbourne's Master of Genomics and Health program, we handed over carriage of these subjects to the university.

Online modules created for these subjects are also used by other Alliance members for professional development.

What's next?

- Courses, workshops, webinars and self-directed learning for those who use genomic tests and those who conduct genomic tests
- Licensing of Melbourne Genomics education and training materials for wider use

An Australian Genomics paper in *Genetics in Medicine* outlined standards for reporting on genomics education interventions. Professor Clara Gaff and Dr Amy Nisselle from Melbourne Genomics were the lead and senior authors of this paper. The standards have been endorsed by the EQUATOR Network, the Global Genomics Nursing Alliance and the Human Genetics Society of Australasia. (Apr 2021)

Immersion programs improve physicians' genomic capability and establish them as genomic experts within their speciality, as demonstrated by our study in *Patient Education and Counselling*. (Mar 2021)

Dr Melissa Martyn from Melbourne Genomics presented on developing a genomic-competent medical specialist workforce at the Annual Scientific Meeting of the European Society for Human Genetics. (Jun 2021)

Outcome #3: GenoVic is adopted as critical enabling infrastructure

Outcome #4: Genomic data is used for clinical care and research

The journey so far

When Melbourne Genomics began its work, there were no clinical-grade systems to support the end-to-end testing workflow. So we built our own, which we named GenoVic.

GenoVic has demonstrated the value of a shared system: not only to make testing processes more effective, but to safely store Victorians' genomic data and use it to provide precision healthcare throughout their lives.

The challenge now is to broaden GenoVic's user base and make it an integral part of national genomic data infrastructure and the digital health ecosystem.

Progress in 2021

Supporting accredited testing for cancer

Monash Health and Alfred Health now use GenoVic to support testing for cancer panels as well as inherited conditions.

The GenoVic team developed functionality specific to cancer tests, including semi-automated submissions to reduce human error, and the ability to store and reanalyse data. This was critical for Monash Health to obtain accreditation for its cancer panels from the National Association of Testing Authorities.

Upgrading the tools in GenoVic

GenoVic provides a software framework for multiple tools used in the genomic testing process.

This year, we incorporated a new commercial testing product, ArcherDX from Invitae. This product will be critical for Austin Health to support myeloid and solid cancer testing. We also supported the Royal Melbourne Hospital to upgrade its genomic data analysis program, Agilent's Alissa Interpret.

Each laboratory has its own bioinformatics pipeline, a complex set of algorithms used to process genomic data and identify gene variants. Our custom-built application, aCLImatise, significantly reduces the labour involved in creating a pipeline.

Monash Health and Austin Health now provide accredited cancer genomic testing using the GenoVic clinical system.

Maturing GenoVic as a service

Technology consultancy BDNA reviewed GenoVic's service management capability and maturity. The review identified GenoVic as a unique product with proven value to Victoria and provided recommendations to further mature our service.

Staying secure through ongoing vigilance

Security is an ongoing process of review and improvement, so that GenoVic can stay ahead of new threats as they emerge.

GenoVic's cloud-based infrastructure was reviewed in December 2021, using the AWS Well-Architected Framework. The framework addresses security, reliability, operational excellence, performance efficiency and cost optimisation.

The review identified a number of areas already compliant with AWS best practice, and recommended a stronger data breach containment procedure, enhanced threat detection and alerting processes, and the introduction of dashboards to improve reporting. As work on these areas was already planned, the recommendations could be quickly actioned, in time for a second review in 2022. External reviews and self-assessments of GenoVic will continue on a regular basis.

What's next?

- Investigating use of the Unique Patient Identification service to link GenoVic with other Victorian clinical systems
- Introducing new features and functions through an established innovation pathway
- Continuing to strengthen privacy, security and incident response capabilities
- Improving laboratory onboarding, software delivery and user support processes

The Reimagining Health Genomics Summit was hosted by Australian Genomics and Google. Dr Natalie Thorne and Vana Madelli presented insights on patients' attitudes to their genomic data, and the circumstances under which patients consented to data sharing. (Sep 21)

Dr Natalie Thorne discussed the evolving use of genomic data in precision medicine, at the BioMelbourne Network's Biosymposium on Advancements in Precision Medicine. (Sep 21)

Dr Natalie Thorne shared key considerations for genomic data access and re-use at the plenary meeting of the Global Alliance for Genomic and Health. (Sep 21)

The community conversation

Community engagement is key to making genomic medicine accessible to every Victorian who needs it.

This year, we laid the foundations to engage with more community, business, private sector and government stakeholders than ever.

Involving consumers in their healthcare

The voices of healthcare consumers – including First Nations peoples, regional Victorians, culturally and linguistically diverse communities, and people with genetic conditions – must inform and guide genomic medicine in Victoria.

We worked with our Community Advisory Group to create a community engagement framework to inform all projects. The framework helps ensure our engagement is ethical, inclusive and meaningful.

Inviting external perspectives

Our new program has a broader range of stakeholders than ever: all those who fund, regulate, study, equip, implement, use and need genomics. Enduring change in health care will only be achieved if they are actively involved in creating that change. Thus, co-design approaches will be used across our entire program.

Project groups and engagement mechanisms are being established to help our stakeholders, ensuring they can contribute in the most valuable way, at the lowest impost.

Making genomics accessible

It's time to introduce genomics to new audiences: from potential investors to government advisors, health consumers and community groups.

We significantly upgraded our website to inform the public conversation on genomics. The new site went live in March 2022.

A paper in Research Involvement and Engagement authored by the Community Advisory Group describes how they enabled Melbourne Genomics to address complex issues like privacy, informed consent, patient experience and the re-use of genomic data. (Nov 21)

Genomics is a team sport

Leading clinicians, researchers and changemakers are working together to make genomic medicine a reality for all Victorians.

Drawing on expertise across Victoria

Every Melbourne Genomics project is a collaboration with specialists from across our Alliance and beyond. These are some of the experts involved in 2021.

Genomics in Practice stream

The Controlling Superbugs project will be led by **Prof Lindsay Grayson** of Austin Health, **Prof Benjamin Howden** at The Peter Doherty Institute for Infection and Immunity, and **Dr Norelle Sherry** of Austin Health and The Peter Doherty Institute for Infection and Immunity.

Dr Kortnye Smith and **Dr Laura Forrest** from the Peter MacCallum Cancer Centre, **A/Prof Jayesh Desai** from the Peter MacCallum Cancer Centre and The University of Melbourne, and **A/Prof Natalie Taylor** from the University of NSW are bringing their expertise to the Cancer Statewide project.

Dr Natasha Brown from the Victorian Clinical Genetics Services and **Dr Michael Fahey** from Monash Health are contributing to our Paediatric Statewide project, with more clinicians expected to join the project in 2022.

Genomic Workforce stream

The following experts advised on enduring education strategies for the workforce: **Prof John Christodoulou**, Chair of Genomic Medicine at The University of Melbourne; **A/Prof Femke Buisman-Pijlman** from the Melbourne School of Professional and Continuing Education; **Prof Stephen Fox** of the Peter MacCallum Cancer Centre; **A/Prof Amy Gray** from the Melbourne Academic Centre for Health; **Prof Steve Trumble** from Melbourne Medical School; **A/Prof Jennifer Weller-Newton** from the Rural Health Academic Network of The University of Melbourne; **A/Prof Catherine Quinlan** from The Royal Children's Hospital; and **Prof Angus Henderson** of Monash Health.

Genomic Information Management stream

A/Prof Kerryn Ireland-Jenkin, **Dr Rishu Agarwal** and **Dr Jonathan Clark** from Austin Health provided advice on innovation in the GenoVic clinical system.

Service delivery in GenoVic was strengthened with the help of **Dr Vivek Rathi**, **Dr Amit Kumar** and **Dr Vanessa Kumar** from Monash Health, **Dr Simon Sadedin** and **Anthony Marty** from the Victorian Clinical Genetics Services, **Dr Bryony Thompson** from The Royal Melbourne Hospital, and **Melanie O'Keefe** and **Dr Kenneth Chan** from the Australian Genome Research Facility.

New skills in our program team

We added new expertise to meet the changing requirements of the program: in implementation science to guide the design of healthcare change projects; business analytics to drive ongoing improvement; community engagement to expand our reach; and project management to ensure that our complex program operates in a disciplined and effective way.

Meet our talented team at **melbournegenomics.org.au**

Our Board

The Board of Directors comprises leaders of the 10 member organisations of the Melbourne Genomics Health Alliance, an Independent Director, and an Independent Chair.

Catherine Walter AM (Chair)
Independent Chair
Appointed: Jul 2016

Dr Dan Grant
Independent Director
Appointed: Dec 2021

Prof Christine Kilpatrick
Chief Executive, The Royal Melbourne Hospital
Appointed: Oct 2015

John Stanway
Chief Executive Officer,
The Royal Children's Hospital
Appointed: Sep 2017 - Retired: Jul 2021

Bernadette McDonald
Chief Executive Officer,
The Royal Children's Hospital
Appointed: Sep 2021

Prof Mike McGuckin
Associate Dean Research, Faculty of Medicine, Dentistry and Health Sciences,
The University of Melbourne
Appointed: Mar 2018

Prof Doug Hilton
Institute Director, WEHI
Appointed: Oct 2015

Prof Kathryn North AC
Director, Murdoch Children's Research Institute
Appointed: Oct 2015

Dr Rob Grenfell
Health Director of the Health and Biosecurity Business Unit, CSIRO
Appointed: Dec 2016

Dr Kirby Siemering
Chief Executive Officer,
Australian Genome Research Facility
Appointed: Apr 2019
Retired: Dec 2021

Joe Baini
Chief Executive Officer,
Australian Genome Research Facility
Appointed: Dec 2021

Prof Shelley Dolan
Chief Executive Officer,
Peter MacCallum Cancer Centre
Appointed: Dec 2019

Adam Horsburgh
Chief Executive Officer, Austin Health
Appointed: Mar 2017

Andrew Stripp
Chief Executive, Monash Health
Appointed: May 2016

Linda Cristine (observer)
Director, Medical Research, Victorian Department of Jobs, Precincts and Regions

Finance, Audit and Risk Committee

Adam Horsburgh (Chair)
Chief Executive Officer, Austin Health
Appointed: May 2021

Lucy Franzmann
Chief Finance Officer,
Peter MacCallum Cancer Centre
Appointed: May 2021

Joh Kirby
Head – Governance, Risk and Compliance, WEHI
Appointed: May 2021

Prof Matt Sabin
Chief Medical Officer and Executive Director – Medical Services and Clinical Governance,
The Royal Children's Hospital
Appointed: May 2021

Peer-reviewed publications

"Clinical impact of genomic testing in patients with suspected monogenic kidney disease", Kushani Jayasinghe, Zornitza Stark, Peter G. Kerr, Clara Gaff, Melissa Martyn, John Whitlam, Belinda Creighton, Elizabeth Donaldson, Matthew Hunter, Anna Jarmolowicz, Lilian Johnstone, Emma Krzensinski, Sebastian Lunke, Elly Lynch, Kathleen Nicholls, Chirag Patel, Yael Prawer, Jessica Ryan, Emily J. See, Andrew Talbot, Alison Trainer, Rigan Tytherleigh, Giulia Valente, Matthew Wallis, Louise Wardrop, Kirsty H. West, Susan M. White, Ella Wilkins, Andrew J. Mallet and Catherine Quinlan, Genetics in Medicine (2021) https://doi.org/10.1038/s41436-020-00963-4

"Cost effectiveness of targeted exome analysis as a diagnostic test in glomerular diseases", Kushani Jayasinghe, You Wu, Zornitza Stark, Peter G. Kerr, Andrew J. Mallett, Clara Gaff, Melissa Martyn, Ilias Goranitis and Catherine Quinlan, Kidney International Reports (2021) https://doi.org/10.1016/j.ekir.2021.08.028

"Evaluating the resource implications of different service delivery models for offering additional genomic findings", Martin Vu, Koen Degeling, Melissa Martyn, Elly Lynch, Belinda Chong, Clara Gaff and Maarten J. IJzerman, Genetics in Medicine (2021) https://doi.org/10.1038/s41436-020-01030-8

"Exome sequencing for isolated congenital hearing loss: a cost-effective analysis", Lilian Downie, David J. Amor, Jane Halliday, Sharon Lewis, Melissa Martyn and Ilias Goranitis, the Laryngoscope (2021) https://doi.org/10.1002/lary.29356

"Introducing Edna: A trainee chatbot designed to support communication about additional (secondary) genomic findings", David Ireland, DanaKai Bradford, Emma Szepe, Ella Lynch, Melissa Martyn, David Hansen and Clara Gaff, Patient Education and Counselling (2020) https://doi.org/10.1016/j.pec.2020.11.007

"'It's something I've committed to longer term': The impact of an immersion program for physicians on adoption of genomic medicine", Melissa Martyn, Belinda McClaren, Monika Janinski, Elly Lynch, Fiona Cunningham and Clara Gaff, Patient Education and Counselling (2020) https://doi.org/10.1016/j.pec.2020.10.013

"Key parameters for genomics-based real-time detection and tracking of multidrug-resistant bacteria: a systematic analysis", Claire L. Gorrie, Anders Goncalves Da Silva, Danielle J. Ingle, Charlie Higgs, Torsten Seemann, Timothy P Stinear, Deborah A Williamson, Jason C Kwong, Lindsay Grayson, Norelle L. Sherry and Benjamin P. Howden, The Lancet Microbe (2021) https://doi.org/10.1016/S2666-5247(21)00149-X

"Making community voices heard in a research-health service alliance, the evolving role of the Community Advisory Group: a case study from the members' perspective" Janet I. Wale, Louisa Di Pietro, Heather Renton, Margaret Sahhar, Christine Walker, Pamela Williams, Karen Meehan, Elly Lynch, Melissa Martyn, Jane Bell, Ingrid Winship and Clara L. Gaff, Research Involvement and Engagement (2021) https://doi.org/10.1186/s40900-021-00326-6

"Pilot study of a combined genomic and epidemiologic surveillance program for hospital-acquired multidrug-resistant pathogens across multiple hospital networks in Australia", Norelle L. Sherry, Robyn S. Lee, Claire L. Gorrie, Jason C. Kwong, Rhonda L. Stuart, Tony M. Korman, Caroline Marshall, Charlie Higgs, Hiu Tat Chan, Maryza Graham, Paul D.R. Johnson, Marcel J. Leroi, Caroline Reed, Michael J. Richards, Monica A. Slvain, Leon J. Worth, Benjamin P. Howden, M. Lindsay Grayson, The Society for Healthcare Epidemiology of America (2021) https://doi:10.1017/ice.2020.1253

"The value of genomic testing: a contingent valuation across six child- and adult-onset genetic conditions", Yan Meng, Philip M. Clarke and Ilias Goranitis, PharmacoEconomics (2021) https://doi.org/10.1007/s40273-021-01103-9

"Utility of clinical comprehensive genomic characterisation for diagnostic categorisation in patients presenting with hypocellular bone marrow failure syndromes", Piers Blombery, Lucy Fox, Georgina L. Ryland, Ella R. Thompson, Jennifer Lickiss, Michelle MCBean, Satwica Yerneni, David Hughes, Anthea Greenway, Francoise Mechinaud, Erica M. Wood, Graham J. Lieschke, Jeff Szer, Pasquale Barbaro, John Roy, Joel Wight, Elly Lynch, Melissa Martyn, Clara Gaff and David Ritchie, Haematologica (2021) https://doi:10.3324/haematol.2019.237693

Melbourne Genomics presentations

Date	Details	Presenter
22/01/2021	Wellcome Genome Campus (UK) Genomic Practice for Genetic Counsellors virtual course, 'An international perspective: Australia'	Clara Gaff
09/03/2021	Antimicrobials Online 2021 by the Antimicrobial Society of Australia (invited oral), 'Genomic sequencing for antimicrobial resistance'	Norelle Sherry
22/03/2021	University of Melbourne School of Population and Global Health Genetics, Health and Society course guest lecture, 'An introduction to clinical bioinformatics'	Natalie Thorne
13/04/2021	Global Genomics Nursing Alliance Webinar, 'Supporting best practice in genomics education and evaluation'	Clara Gaff and Amy Nisselle
03/05/2021	The University of Melbourne Master of Bioinformatics Elements of Bioinformatics course guest lecture, Clinical bioinformatics	Natalie Thorne
08/06/2021	Australasian Association for Clinical Genetics Advanced Genetics Trainees program webinar, 'Ensuring best practice in genomics education and evaluation'	Amy Nisselle
10/06/2021	Bioinformatics in Cancer Research and Therapy Symposium at the Olivia Newton-John Cancer Research Institute, '10 things to know about translating bioinformatics into clinical practice'	Natalie Thorne
11/06/2021	Supporting Health By Tech Conference 2021 (proffered oral), 'Introducing Edna: the trainee genomic chatbot designed with patients in mind	DanaKai Bradford
16/06/2021	InGeNA Webinar, 'Rethinking the ethical and effective use of genomic data'	Natalie Thorne
08/07/2021	Thinking Qualitatively Virtual Conference (proffered oral), 'Patient priorities, preferences and reported outcomes when using treatment directed genomic testing for an advanced cancer: A qualitative study'	Rona Weerasuriya

Date	Details	Presenter
28/07/2021	University of Sydney Master of Genetic Counselling journal club, Discussing Nisselle et al., 'Ensuring best practice in genomics education and evaluation: reporting item standards for education and its evaluation in genomics (RISE2 Genomics)' (2021) Genetics in Medicine	Amy Nisselle and Clara Gaff
29/07/2021	Australian College of Nursing monthly webinar series, 'Genomics and nursing: Current practice, education and careers'	Amy Nisselle and Clara Gaff
11/08/2021	University of Melbourne Master of Genomics and Health course guest lecture, 'An introduction to translational genomics'	Elly Lynch
11/08/2021	University of Melbourne Master of Genomics and Health course guest lecture, 'Using implementation science to facilitate change'	Belinda McClaren
17/08/2021	Human Genetics Society of Australasia 44th Annual Meeting (proffered oral), 'Preparing non-genetic medical specialists for genomic medicine'	Melissa Martyn
20/08/2021	The Victorian Comprehensive Cancer Centre Molecular Tumour Board, 'Patient preferences surrounding the delivery of genomic results'	Kortnye Smith
25/08/2021	The University of Melbourne Master of Genomics and Health course guest lecture, 'Genomic communication'	Zayne D'Crus
25/08/2021	The University of Melbourne Master of Genomics and Health course guest lecture, 'Community Engagement in Translational Genomics'	Chriselle Hickerton
25/08/2021	The University of Melbourne Master of Genomics and Health course guest lecture, 'Genomics workforce development and education'	Amy Nisselle
01/09/2021	Australian Institute of Medical and Clinical Scientists National Scientific Meeting 2021 (invited oral), 'This is going to be a critical skill now and in the future: Educating Medical Scientists in Variant Interpretation'	Natalie Thorne

Date	Details	Presenter
03/09/2021	BioSymposium: Advancements in Precision Medicine, Opportunities, Challenges and Economics, SESSION 1: BARRIERS AND OPPORTUNITIES IN RESEARCH - Chaired by Dr Keith McLean, Board Director, BioMelbourne Network	Clara Gaff
17/09/2021	Google's Reimagining Health Genomics - Technology Summit 'Genomic data sharing: Participant perspectives'	Natalie Thorne and Vana Madelli
17/09/2021	Google's Reimagining Health Genomics - Technology Summit 'Technological solutions for genomic workforce challenges'	DanaKai Bradford
01/10/2021	Global Genomic Medicine Consortium, 'Supporting best practice in genomics education: Tools to apply theory to practice'	Amy Nisselle and Clara Gaff
14/10/2021	Global Alliance for Genomics and Health Connect Meeting (invited oral), 'National Clinical Consent, Australia'	Clara Gaff
28/10/2021	World Congress on Genetic Counselling (invited oral), 'Navigating across sectors: Talking with governments'	Clara Gaff
01/12/2021	Front Line Genomics' Exploring the Current Sequencing Landscape webinar, 'The shifting NGS landscape' panel	Natalie Thorne
08/12/2021	13th Annual Symposium on Cochlear Implants and Related Sciences (invited oral), 'Exome sequencing in a population cohort of infants with congenital deafness, translating findings into funded testing'	Lilian Downie

Operations

Our focus in 2021 was to lay the foundations for the successful delivery of the new program.

Funding and governance

A Grant Agreement with the Victorian Government's Department of Jobs, Precincts and Regions was swiftly executed, enabling the new program to commence on 1 May 2021.

Melbourne Genomics continues to be operationally supported by WEHI, as the host organisation, and the Murdoch Children's Research Institute, where the program team is located. Arrangements with both organisations are in place to the end of 2025.

A governance review in 2020 recommended the appointment of an independent director and the formation of two Board committees. Both recommendations were implemented in 2021. We welcomed Dr Dan Grant to the Board as an independent director; and set up the Finance, Audit and Risk Committee to assist the Board in its statutory, fiduciary and regulatory responsibilities, and the Business Development and Commercialisation Committee to help maximise value and deliver long-term benefits.

Program team and assets

We complemented the existing expertise in our program team with new capabilities needed to successfully embed genomic medicine in the Victorian health system. This included critical skillsets such as implementation science, health informatics and evaluation.

We drew on the leadership and expertise within Alliance member organisations to develop projects and extend our engagement across the Victorian health sector.

Activities commenced to maximise the value of program assets. We developed a licensing model for education and training materials, began assessment of business models to support enduring genomic education, and commenced planning for the long-term sustainability of the GenoVic clinical system.

As at the end of 2021 there were 30 staff employed by Melbourne Genomics. This will continue to grow as the new program is established.

Financial Statements for the year ended 31 December 2021

Melbourne Genomics Health Alliance

Financial Statements for the year ended

31 December 2021

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Melbourne Genomics Health Alliance

Financial Statements for the year ended

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Statement of profit or loss and other comprehensive income

	Note	2021 $'000	2020 $'000
Operating revenue			
Grant revenue		3,477	5,522
Member contributions		1,666	-
Interest income		7	18
Sundry income		-	124
Total operating revenue		**5,150**	**5,664**
Operating expenditure			
Staff costs	2	2,925	4,117
Apparatus and equipment		29	4
Consumable supplies		1	2
Consultancy		1,990	1,474
Other expenses		205	67
Total operating expenditure		**5,150**	**5,664**
Surplus/(deficit) from operations		**-**	**-**

The financial statements are to be read in conjunction with the notes to and forming part of the financial statements.

Melbourne Genomics Health Alliance

Financial Statements for the year ended

31 December 2021

Statement of financial position

	Note	2021 $'000	2020 $'000
Assets			
Current assets			
Cash and bank balances	5(a)	9,079	4,101
Trade and other receivables		1,617	-
Total current assets		**10,696**	**4,101**
Total assets		**10,696**	**4,101**
Liabilities			
Current liabilities			
Trade and other payables	3	864	370
Unearned grant income	4	9,832	3,731
Total current liabilities		**10,696**	**4,101**
Total liabilities		**10,696**	**4,101**
Net assets		**-**	**-**
Total funds		**-**	**-**

The financial statements are to be read in conjunction with the notes to, and forming part of the financial statements.

Statement of cash flows

	Note	2021 $'000	2020 $'000
Cash flows from operating activities			
Receipts from sundry income		-	124
Receipt from granting bodies		9,578	3,232
Receipt from member contributions		49	-
Payments to suppliers and employees		(4,656)	(5,907)
Interest and bill discounts received		7	18
Net cash generated by / (used in) operating activities	**5(b)**	**4,978**	**(2,533)**
Net cash used in investing activities		**-**	**-**
Net cash used in financing activities		**-**	**-**
Net increase / (decrease) in cash and held		**4,978**	**(2,533)**
Cash and cash equivalents at the beginning of the period		**4,101**	**6,634**
Cash and cash equivalents at the end of the period	**(5a)**	**9,079**	**4,101**

The financial statements are to be read in conjunction with the notes to, and forming part of the financial statements.

Melbourne Genomics Health Alliance

Financial Statements for the year ended

31 December 2021

Statement of changes in equity

	Total Funds 31 December 2021 $'000
Balance at 1 January 2020	**-**
Operating surplus/(deficit) for the period	-
Balance as at 31 December 2020	**-**
Operating surplus/(deficit) for the period	-
Balance at 31 December 2021	**-**

The financial statements are to be read in conjunction with the notes to, and forming part of the financial statements.

Notes to the financial statements

1. Statement of significant accounting policies

The entity is an unincorporated alliance, and has prepared the financial statements on the basis that it is a non-reporting entity because there are no users dependent on a general-purpose financial report. The financial report is therefore a special-purpose financial report that has been prepared in order to meet the requirements of the unincorporated alliance.

Basis of preparation
The financial report has been prepared on the basis of historical cost except for the revaluation of certain non-current assets and financial instruments. Cost is based on the fair values of consideration given in exchange for assets.

The financial statements have been prepared in accordance with the recognition and measurement requirements specified by all Australian Accounting Standards and Interpretations, and the disclosure requirement of Accounting standards AASB 101 Presentation of Financial Statements, AASB 107 Statement of Cash Flows, AASB 108 Accounting Policies Changes in Accounting Estimates and Errors, and AASB 1054 Australian Additional Disclosures, as required by the underlying funding agreement.

Accounting policies are selected and applied in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events is reported.

A funding agreement between the Alliance and the State of Victoria was signed on 9th June 2021. The funding agreement of $35million is for the contribution to the continuation of the Melbourne Genomics Health Alliance, with a completion date of 30 April 2025. The current executed collaboration agreement between the Alliance members has been extended until December 2025 after a new collaboration agreement was fully signed on 11th February 2022. The financial statements are presented on a going concern basis.

The financial statements are presented in Australian Dollars.

The financial statements include activities from prior period funding (phase 2) to 30 April 2021, and activities from the current funding program (phase 3) from 1 May 2021 of Melbourne Genomics Health Alliance.

Principal address of the Alliance is:
1G Royal Parade
Parkville, Victoria, 3052

Accounting policies

The following significant accounting policies have been adopted in the preparation and presentation of the financial report:

(a) Revenue recognition

Research Grants

When the Alliance receives government grants that are within the scope of AASB 1058 (being a transaction where the consideration paid to acquire an asset is significantly less than fair value

principally to enable the Alliance to further its objectives), it performs an assessment to determine if the contract is 'enforceable' and contains 'sufficiently specific' performance obligations.

In cases where there is an 'enforceable' contract with a customer with 'sufficiently specific' performance obligations, the transaction is accounted for under AASB 15 where income is recognised when (or as) the performance obligations are satisfied.

In all other cases (where the contract is not 'enforceable' or the performance obligations are not 'sufficiently specific'), the transaction is accounted for under AASB 1058, unless where the Alliance has recognised this under AASB 9 Financial Instruments, as a financial liability on contract inception.

In these instances, the Alliance:
- Recognises the asset in accordance with the requirements of other relevant applicable Australian Accounting Standards (e.g. AASB 9, AASB 16, AASB 116 and AASB 138)
- Considers whether any other financial statement elements should be recognised ('related amounts') in accordance with the relevant applicable Australian Accounting Standard including:
    - contributions by owners (AASB 1004)
    - a lease liability (AASB 16)
    - a financial instrument (AASB 9)
    - a provision (AASB 137)
- Recognises income immediately in profit or loss for the excess of the initial carrying amount of the asset over any related amounts recognised.

In cases where the consideration is solely performance obligations under an enforceable contract and sufficiently specific to enable determination as to when the obligations are satisfied, the transaction is accounted for under AASB 15, and where applicable AASB 9.

Member contributions

Member contributions are recognised each quarter when received under AASB 1058 (being a transaction where the consideration paid to acquire an asset is significantly less than fair value principally to enable the Alliance to further its objectives). Member contributions are accrued on a quarterly basis as per Section 11 of the collaboration agreement.

(b) Cash and cash equivalents

Cash comprises cash on hand and on demand deposits. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash, which are subject to an insignificant risk of changes in value and have a maturity of six months or less at the date of acquisition.

(c) Trade and Other Payables

Trade and other payables are initially measured at fair value on inception and then subsequently carried at amortised cost. They are recognised when the Alliance becomes obliged to make future payments resulting from the purchase of goods and services. The alliance derecognises financial liabilities when, and only when, the alliance's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

(d) Goods and Services Tax (GST)

Revenue, expenses and assets are recognised net of the GST amount except:

(i) where the amount of GST incurred is not recoverable from the taxation authority, it is recognised as part of the cost of acquisition of an asset or as part of an item of expense; or
(ii) for receivables and payables which are recognised inclusive of GST.

The net amount of GST recoverable from, or payable to, the taxation authority is included as part of receivables or payables. Cash flows are included in the statement of cash flows on a gross basis.

(e) Critical accounting judgements and key sources of estimation uncertainty

In the application of the Alliance's accounting policies, which are described above, management may from time to time make judgements, estimates and assumptions about the carrying values of assets and liabilities that may not be readily apparent from other sources. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under key circumstances, the result of which form the basis of making the judgement. Key areas in which management has exercised judgement include the calculation of the carrying value of employee benefits.

(f) Impact of new and revised Accounting Standards

In the current period, the Alliance has adopted all of the new and revised standards and interpretations issued by the Australian Accounting Standards Board (the AASB) that are relevant to its operations and effective for the current reporting period.

In the current year, the Alliance has applied the below amendments to AASB Standards and Interpretations issued by the Board that are effective for an annual period that begins on or after 1 January 2021. Their adoption has not had any material impact on the disclosures or on the amounts reported in these financial statements.

- AASB 2018-7 Amendments to Australian Accounting Standards – Definition of Material
- AASB 2019-1 Amendments to Australian Accounting Standards – References to the Conceptual Framework
- AASB 2019-5 Amendments to Australian Accounting Standards – Disclosure of the Effect of New IFRS Standards Not Yet Issues in Australia

At the date of authorization of these financial statements, the Alliance has not applied the following new and revised AASB Standards that have been issued but are not yet effective:

- Amendments to IAS 1 - Classification of Liabilities as Current or Non-current
- Amendments to IFRS 3 - Reference to the Conceptual Framework
- Annual Improvements to IFRS Standards 2018-2020 Cycle - Amendments to IFRS 1

The issued but not yet effective standards above are not expected to have a material impact on the Alliance in future reporting periods and on foreseeable future transactions. The Alliance anticipates applying these new standards in the year they become effective. The standards listed above are only those relevant to the Alliance.

	2021	2020
	$'000	$'000
2. Operating expenses		
The following items of expense are included in the net surplus.		
Remuneration of auditors		
Auditing the financial report	40	38
Employee benefits expense		
Employee benefits expense	2,925	4,117
3. Trade and other payables		
Accrued expenses	619	196
Trade and other payables	245	174
	864	**370**
4. Unearned grant income		
Grants already committed and applicable to future periods	9,832	3,731
	9,832	**3,731**

	2021	2020
	$'000	$'000

5. Notes to statement of cash flows

(a) Reconciliation of cash

For the purposes of the statement of cash flows, cash includes cash on hand and
cash at bank, net of outstanding bank overdrafts.

Cash at the end of the financial period as shown in the statement of cash flows is reconciled to the related items in the statement of financial position as follows:

Cash	9,079	4,101

(b) Reconciliation of net surplus to net cash flows from operating activities

Net surplus	-	-
Changes in net assets and liabilities:		
(Increase)/decrease in assets:		
Trade and other receivables	(1,617)	-
Prepayments	-	66
Increase/(decrease) in liabilities:		
Accrued expenses	494	(309)
Other current liabilities (Grants)	6,101	(2,290)
Net cash from operating activities	**4,978**	**(2,533)**

6. Events after the reporting period

The directors are not aware of any other matter of circumstance which has arisen since the end of the financial year which has significantly affected or may significantly affect the operations of Melbourne Genomics Health Alliance, results of those operations or the state of affairs of Melbourne Genomics Health Alliance in subsequent financial years.

Melbourne Genomics Health Alliance

Financial Statements for the year ended

31 December 2021

Directors' declaration

As detailed in note 1 to the financial statements, the Alliance is not a reporting entity because in the opinion of the directors there are unlikely to exist users of the financial report who are unable to command the preparation of reports tailored so as to satisfy specifically all of their information needs. Accordingly, this special purpose financial report has been prepared to satisfy the Directors' reporting requirements.
The Directors declare that:

(a) In the Directors' opinion, there are reasonable grounds to believe that the Alliance will be able to pay its debts as and when they become due and payable; and

(b) In the Directors' opinion, the attached financial statements and notes thereto comply with accounting standards and give a true and fair view of the financial position and performance of the Alliance.

Signed in accordance with a resolution of the Directors.

On behalf of the Directors

Catherine Walter

Board Chair

Adam Horsburgh

Finance, Audit & Risk Committee Chair

6 June 2022

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Independent Auditor's Report to the Directors of Melbourne Genomics Health Alliance

Opinion

We have audited the financial report, being a special purpose financial report of Melbourne Genomics Health Alliance ("MGHA" or the "Entity"), which comprises the statement of financial position as at 31 December 2021, the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the declaration by the directors.

In our opinion, the accompanying financial report presents fairly, in all material respects, the Entity's financial position as at 31 December 2021, and of its financial performance and its cash flows for the year then ended in accordance with the Funding Agreement between the Department of Jobs, Precincts and Regions and MGHA.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Entity in accordance with the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including independence standards)* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

The directors are responsible for the other information. The other information comprises of the information included in the annual report, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information; we are required to report that fact. We have nothing to report in this regard.

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Emphasis of Matter – Basis of Accounting and Restriction on Distribution and Use

We draw attention to Note 1 to the financial report, which describes the basis of accounting which states that the financial report has been prepared in accordance with the recognition and measurement requirements by specified accounting standards for meeting the reporting requirements of the underlying funding agreement. The financial report has been prepared to assist the Entity to meet the financial reporting requirements of the Alliance under this agreement. As a result, the financial report may not be suitable for another purpose. Our report is intended solely for the Alliance and should not be distributed or used by parties other than the Alliance. Our opinion is not modified in respect of this matter.

Responsibilities of the Directors for the Financial Report

The directors of the Entity are responsible for the preparation of the financial report in accordance with Australian Accounting Standards to the extent described in Note 1 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error.

Responsibilities of the Directors for the Financial Report (continued)

In preparing the financial report, the directors are responsible for assessing the ability of the Entity to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intend to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

The directors are responsible for overseeing the Entity's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.

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- Conclude on the appropriateness of the Directors' use of the non-going concern basis of accounting. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report.

- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

Anneke du Toit
Partner
Chartered Accountants
Melbourne, 6 June 2022

Genomics helps Victorians find answers, get better care and live healthier lives.

Melbourne Genomics
Health Alliance

Melbourne Genomics Health Alliance

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