The **MCRI GenV Fellowships** are designed to build GenV capabilities in diverse areas and develop career paths for exceptional early-mid career researchers.

GUIDELINES

BACKGROUND

As the world's largest early and midlife cohort mounted internationally for a decade and only 'COVID cohort', Generation Victoria (GenV) offers immense opportunities to establish a career and leadership at the cutting edge of child and midlife research.

GenV's mission is to help solve complex issues facing today's children and adults. Open to every Victorian child born between Oct 2021-Oct 2023 and their parents, it is creating a deep, long, broad and inclusive cohort (rich in phenotype, survey data and biosamples) and uniting this with Australia's national data assets (rich in administrative, service, environment and policy data). Alone, neither suffices to solve today's challenges to physical, mental, social and cognitive health. Together, they can create powerful platforms for discovery and interventional research.

PURPOSE

The intent of the **MCRI GenV Fellowships** is to support early and mid-career researchers to assist in GenV's transition from establishment to shaping its future. Each Fellowship will help develop (a) an important element of GenV's capabilities, (b) its documentation and (c) a scientific agenda that the Fellow can (if wished) further develop over the ensuing 5 years. The 8 Fellowship topics are listed below in the Available Fellowships section; one additional Fellowship to develop a First Nations-led research agenda and roadmap for GenV may be offered, with application by invitation only.

VALUE

- Full salary plus on-costs (set at 28.5%) at the appropriate classification/level of the awardee.
- The Fellowships are set amounts of money for salary only. If additional funds are required to cover direct research costs, this will be made available by GenV or grant applications.

CONDITIONS

- The Fellowships are available as either a part time or full time (minimum 0.5 up to 1.0 FTE) appointment
- The Fellowships are for a maximum of 24 months part time or 12 months full time.
- Fellowships would ideally commence by September 2023 (and not later than 8 Jan 2024, by negotiation)
- The Fellowship will cease immediately if the Fellowship holder ceases or changes employment or accepts salary support from another source (eg: external fellowship). Any unexpended funds cannot be paid out, carried over or transferred.
- Payment of the Fellowship is made subject to compliance with the conditions outlined in these guidelines.
- Applicants must apply to undertake one of the projects as outlined in these guidelines. No changes can be made.
- Applicants can apply for more than one Fellowship but must indicate preference on the application.

ELIGIBILITY

- The Fellowships are open to current researchers (salaried or honorary) on the Melbourne Children's Campus (MCRI, RCH or University of Melbourne), who have a PhD or equivalent in Health/Medicine-related field of Science, or evidence of submission of PhD thesis (to be provided with the full application)
- If you have any questions about your eligibility, please contact Jackie.whyte@mcri.edu.au

SELECTION CRITERIA

Applications will be judged based on:

1. Research quality and output [50%] – see sections 1.1 to 1.8 below
- The quality and relevance of the applicant's academic record and research achievements
- Evidence of cross-disciplinary approaches and collaboration

2. Contributions [10%] – see sections 2.1 to 2.5 below
- Within the Children's Campus
- Scientific community e.g., contribution to a professional society

3. Skills and vision for the selected Fellowship(s) [40%] – see sections 3.1 and 3.2 below
- Understanding of principles and likely approaches to develop the selected aspect of GenV's capabilities
- Quality and relevance of skill set to achieve this
- Your vision as to how this Fellowship would shape your research agenda over the subsequent 5 years and its potential impact

Relative to opportunity
All applications will be assessed *relative to opportunity*. Career disruptions and other relative to opportunity considerations may be detailed on the application form. Circumstances considered under relative to opportunity include, but are not limited to, the following:
- amount of time spent as an active researcher,
- administrative and/or teaching workload,
- career disruptions due to pregnancy or carer responsibilities and major illnesses/injuries,
- available resources or relocation of research laboratory or similar.

REVIEW PROCESS
- Applications will be assessed by an internal review committee of senior academics who will assess submissions against the specific selection criteria as outlined in these guidelines. Applications for each Fellowship will be ranked and shortlisted based on merit.
- Shortlisted applicants will be invited for interview in mid-late July.

OBLIGATIONS OF RECIPIENTS
The Fellowship holder must:
- advise the Office of Research (officeofresearch@mcri.edu.au) of any major unanticipated changes to plans (eg: maternity leave).
- acknowledge the support of the Fellowship funding on any outputs that arise (eg: presentations, publications, reports etc).
- provide a brief report at the completion of their award outlining the activities undertaken, any outputs that resulted and the benefit that has been gained. The report must be submitted to the Office of Research no later than one month after completion of the Fellowship.

COMPLETION AND SUBMISSION OF APPLICATION FORM
- **Do not include these guidelines as part of the submitted application.**
- Complete ALL sections (do not delete any sections; insert "N/A" in sections that are not applicable).
- Please type inside the boxes and do not alter the font size or format of the form. Additional pages or rows in tables may only be inserted where indicated. Any further information will not be considered.
- The application should be saved as a single PDF file and be named according to the following format: **Surname_2023 GenV Fellowship Application.pdf**.
- Electronic signatures are acceptable.
- Please consent for the Fellowships panel to access your academic research transcript held by MCRI People & Culture, or attach it to your application
- Electronically submit your application (and transcript if relevant) to the MCRI Office of Research officeofresearch@mcri.edu.au, by **9:00am Monday 10th July, 2023**. A paper application is not required.

Any enquires please contact officeofresearch@mcri.edu.au.

**Please Note**: It is the responsibility of the applicant to ensure that all information provided is accurate and that the application is complete. Incomplete applications may be deemed ineligible.

AVAILABLE FELLOWSHIPS
Fellowship 1: Geospatial capabilities

Where we live, work or play has immense consequences for our health and wellbeing because multiple exposures vary by place and geography. But how and when in the lifecourse does this 'exposome' shape our outcomes? Answers could come from a collective resource of the world's only contemporary early life mega-cohort, Australia's comprehensive longitudinal geospatial data sources and today's high-performance computing capabilities.

Working with GenV's Geospatial and Data Linkage Working Groups, this Fellow will apply geospatial methods to help (1) design and create a high spatio-temporal resolution natural and built environment exposome platform for GenV, and (2) develop a forward agenda to address critical questions that could improve (for example) risk prediction, policy and/or urban planning.

Fellowship 2: Clinical and pathology data linkage

Curated administrative datasets (like Medicare's MBS & PBS) are complete and immensely valuable for research. However, this does not extend to clinical data from hospitals or pathology services, which are not collated, harmonized or readily accessible to research. Health services research is thus missing a critical sector.

Building on pilot work already undertaken in GenV, this Fellow will assist with (1) bringing whole-state clinical data into GenV, (2) its manipulation into end-user data, and (3) developing a forward research agenda using these data. The work may focus on data from Victoria's 58 birthing hospitals, 40 special care nurseries, 10 pathology services, and/or hospitals that provide subsequent services for children or mid-life adults.

Fellowship 3: Trials and interventional capabilities

Alone among mega-cohorts internationally, GenV is planning its Intervention Hub. Children and younger adults are under-represented in research in general, in trials specifically, and especially in large trials that map to major burden of disease. We believe that multiple issues – mental health, obesity & diabetes, healthy brains, allergy & immunity, infection & antibiotics, equity, impacts of climate & environment – can all be efficiently targeted within the framework of a very large, intervention-capable research cohort.

This Fellow will assist in (1) developing methods to embed trials capabilities into a large cohort; (2) prioritising high-value interventions using transparent and replicable processes; (3) ensuring that GenV's data landscape is fit for interventional as well as observational research; and (4) funding applications for at least one new GenV-embedded trial.

Fellowship 4: Antenatal image repository
Prediction in pregnancy of obstetric, newborn and childhood outcomes remains frustratingly inexact, resulting in avoidable burden to maternal and child health and health services. A mega-repository of images/traces with well-phenotyped outcomes could enable artificial intelligence (AI) to transform the predictive value of routine foetal and maternal ultrasounds.

This Fellow will help cost, plan, and develop a statewide consented repository of antenatal ultrasounds for GenV pregnancies; develop methods for automated data extraction and prediction algorithms using AI; and develop a focused research agenda including funding applications. Long-term outcomes include the world's largest antenatal US repository; new methods, algorithms, tools and knowledge; and precision prediction for a range of important outcomes.

Fellowship 5: Policy mapping and agenda
The impacts of policy – federal, state, local – on the life chances of individuals and communities can be profound but hard to pin down. GenV's internationally-unique features could shed light on policy cause and effect – notably, the cohort's very large size and diversity (with all Victorian groups represented), inclusion of all localities and services (with area variation in policy nets), and establishment during the COVID-19 pandemic (with its seismic policy changes during preconception, pregnancy and early childhood life stages).

This Fellow will (a) work closely with policy leaders, (b) create temporal and spatial maps of changing policies from 2018 to 2024, and (c) develop a forward agenda to study the impacts of these policies on children's and parents' health, wellbeing and socioeconomic circumstances.

Fellowship 6: GenV's school entry wave
By 2028, GenV's children are 6 years old. Every child is at school; a child's potential is evident across every physical, mental, social and cognitive domain; and incredible technology can capture this growth via rapid app-driven and wearable indicators of body and mind. For example, a single video of a walking child might deliver estimate of body size, proportions, composition, coordination, neurologic function and mental health, while a single disposable patch could transmit heart rate, stress reactivity and oximetry. Join us to see what value we can collectively pack into a fun, technology-driven, school-based, one-hour assessment for every GenV child!

This Fellow will (a) work with families and academic, policy, technology and commercial leaders to define measurable priority constructs, (b) help design a rapid-fire one-hour assessment schedule for which every measure is portable, inexpensive, non-invasive and multipurpose, and (c) develop a forward research agenda and grant applications to support and capitalise on this unique endeavour.

Fellowship 7: Genomic capabilities
For genomics to fully benefit populations via preventive health, very large, unselected early and mid-life cohorts are needed, who will come to experience all but the least common conditions in sizeable numbers. Generation Victoria (GenV) is the only such cohort launched internationally over the last decade. Time is short to fully enable it for genomic benefit, which is likely to require commercial, philanthropic and research partnerships.

This Fellow will work with GenV towards a feasible, evidence-based approach to genomic research that is truly population representative of all cultures or languages, so that the full cost-benefit of genomic discoveries can be realised for Australia. They will also develop their own forward research agenda and grant applications to support and capitalise on this unique endeavour.

Fellowship 8: Remote phenotyping: taking direct participant measurement to scale
GenV's vision of a deep, long, broad and inclusive cohort that is rich in phenotype requires body and brain measurement at universal scale over time and across a large geographic area. Traditionally undertaken in costly, burdensome face-to-face research assessments, GenV has instead taken on the challenge of remote home delivery via our customized 'GenV and Me' app, launched in 2022.

This Fellow has the exciting opportunity to help drive interactive, cutting-edge digital assessments (eg adaptive cognition, executive function, hearing, vision, lung function) that meet this goal. They will work with

GenV to prioritise phenotypes, investigate existing tools and their adaptation for 'GenV and Me', and test and implement one or more novel and important measures. They will also develop their own forward research agenda and grant applications to support and capitalise on this unique endeavour.

FELLOWSHIP PROJECT

Please select the Fellowship project that you are applying for by checking the appropriate box. If interested in more than one project, please indicate your preference with 1 being your first choice, 2 your second etc.

Preference	Fellowship
	☐ 1. Geospatial capabilities
	☐ 2. Clinical and pathology data linkage
	☐ 3. Trials and interventional capabilities
	☐ 4. Antenatal image repository
	☐ 5. Policy mapping and agenda
	☐ 6. GenV's school entry wave
	☐ 7. Genomic capabilities
	☐ 8. Remote phenotyping: taking direct participant measurement to scale

APPLICANT DETAILS

Last Name	
First Name	
Current Research Group/Theme	
Current Supervisor/s	
Current Appointment (Title/Level/EFT)	
Work Phone Number	
Mobile Number	
Email	
Academic transcripts	☐ I agree that the Fellowship panel can access my academic transcripts held by MCRI People and Culture, OR ☐ I attach my academic transcripts

SECTION 1 – RESEARCH QUALITY AND OUTPUT (50%)

SECTION 1.1 – ACADEMIC QUALIFICATIONS

Provide details of your academic degrees in date order beginning with the most recent. Add rows if necessary. If you have not completed your degree, indicate the expected submission date

Degree	University	Department	Start Date	End Date

SECTION 1.2 – CURRENT AND PREVIOUS EMPLOYMENT POSITIONS

Provide details since the completion of your research graduate degree, in date order beginning with the most recent. Add rows if necessary.

Position	Organisation Name	Department / Theme	Start Date	End Date

SECTION 1.3 – RESEARCH OPPORTUNITY AND CAREER DISRUPTION (1000 words maximum)

This section provides you with the opportunity to highlight to the assessors the research opportunities that you have had and any relative to opportunity considerations and the effect these have had on your research and research achievements (see the guidelines for further information on 'relative to opportunity').

Describe in no more than 1000 words: postgraduate

(i) *The research opportunities that you have had since completing your research degree in the context of your employment situation;*
(ii) *Any career disruptions that you have had for childbirth, carer's responsibilities, or illness;*
(iii) *Any other circumstances that may have affected the time you have had to conduct and disseminate your research.*

SECTION 1.4 – PATENTS AND COMMERCIAL OUTCOMES

*Provide details (including your role) of any patents and/or commercial outcomes that you have contributed to in the **last 5 years only**. List outcomes in reverse chronological order*

SECTION 1.5 – CONFERENCE PARTICIPATION

*Provide details of conferences you have presented at in the **last 5 years only**. Include details such as conference title, year, type of presentation, title of your presentation, whether it was an invited/keynote presentation/selected from abstract. List presentations in reverse chronological order.*

SECTION 1.6 – AWARDS AND PRIZES

*List any awards and prizes received in the **last 5 years only** in reverse chronological order.*

SECTION 1.7 – INTERNAL AND EXTERNAL FUNDING

List any past (last 5 years only), current or requested grants/salary support awards from both internal (MCRI) and external sources in date order, beginning with the most recent. Add rows as required to accommodate all funding.

Scheme	Title	Investigators *(Including yourself and in order as listed on grant)*	Past, Current or Requested	Years of Support __ to __	Total amount (AU$)

SECTION 2 – CONTRIBUTIONS (10%)

SECTION 2.1 – RESEARCH SUPERVISION AND MENTORING

*Describe your current supervisory roles, including the number of research assistants/students/etc. that you manage/supervise. Also provide details of the numbers and types (e.g. PhD, Masters, Honours, etc.) of students and postdocs you have supervised or mentored in the **last 5 years**, and whether you were the principal or co-supervisor.*

SECTION 2.2 – JOURNAL/GRANT REVIEWING AND EDITORIAL RESPONSIBILITIES

*Describe any journal/grant reviewing and editorial responsibilities you have performed in the **last 5 years only**.*

SECTION 2.3 – PROFESSIONAL MEMBERSHIPS

*List the professional memberships you have held in the **last 5 years** in reverse chronological order. Include the organisation name and start and end dates of your membership.*

SECTION 2.4 – PROFESSIONAL CONTRIBUTIONS

*Describe any external committees, steering groups, advisory panels or other activities (eg: school visits, public lectures) that you have been involved in over the **past 5 years only**.*

SECTION 2.5 – CONTRIBUTIONS TO MCRI

*Please describe any contributions that you have made to MCRI in the **last 5 years**.*

SECTION 3– SKILLS AND VISION FOR THE SELECTED FELLOWSHIP(S) (10%)

SECTION 3.1 – CAREER PATHWAY (500 word maximum)

Describe your vision for your professional career and what will you need to achieve this.

SECTION 3.2 – SKILLS & VISION FOR THE SELECTED FELLOWSHIP (2 pages maximum including references; replicate as necessary for each Fellowship opportunity selected)

Please start this section, including the heading, on a new page. Do not alter the font type or size. Outline:
- *your understanding of principles and likely approaches to develop the selected aspect of GenV's capabilities*
- *the quality and relevance of your skill set to achieve this*
- *your vision as to how this Fellowship would shape your research agenda over the subsequent 5 years and its potential impact*

SIGNATURE

*Signatures **must** be submitted with application.*

Applicant Signature	**Date**

By submitting this form, you are certifying that all information provided is accurate.