



**VALD** APPLIED  
RESEARCH  
INITIATIVE

INTRODUCING THE  
**VALD Applied Research Initiative  
for physiotherapists**

Applications are now open for up to \$100,000 AUD in VALD Applied Research Initiative (VARI) grants towards funding research into one of three key focus areas of musculoskeletal healthcare.

## Who should apply?

Researchers interested in partnering with VALD on research projects that align with our core research priorities.

## Project goals

To enable research organisations to help VALD tackle major health challenges.

To help fund programs of work with ambitious objectives that are only possible through collaboration.



## Research aims and focus areas

VALD aspires to lead the change in musculoskeletal healthcare through technology. Currently, we provide human-measurement technology to more than 3,000 of the world's most elite sporting teams, clinics, universities, hospitals, and defence departments. Our ambition is to drive the global digital evolution of precision healthcare to help address the chronic burden of musculoskeletal diseases.

Driven by a multidisciplinary global team of more than 200 researchers, physiotherapists, exercise physiologists, sports scientists, designers, developers, and engineers, VALD systems offer unparalleled insight into human movement, performance, injury risk and rehabilitation. The VALD suite includes:

- ForceDecks Dual Force Plate System
- NordBord Hamstring Testing System
- ForceFrame Strength Testing System
- HumanTrak Movement Analysis System
- TeleHab Exercise Prescription
- PROMs and patient education app
- AirBands BFR Cuffs
- SmartSpeed Timing Gate System Range
- DynaMo Handheld Dynamometer and Inclinometer Range

## Objectives

VALD aims to pioneer industry support of research that improves the health and wellbeing of the community. By supporting the next generation of researchers, we want to demonstrate the efficacy of VALD products in augmenting rehabilitation and driving performance improvements.

Applicants should clearly define how their project aligns with VALD's key focus areas, the scope of activities proposed, major milestones to be achieved, and major risks and mitigation strategies. The scope of work should be achievable within 12 months of receiving the grant. Given the relatively short timeframe, applicants should provide a clear timeline for executing the proposed work along with a description of how funds will be allocated. Applications are limited to 500 words to encourage clear and concise communication.

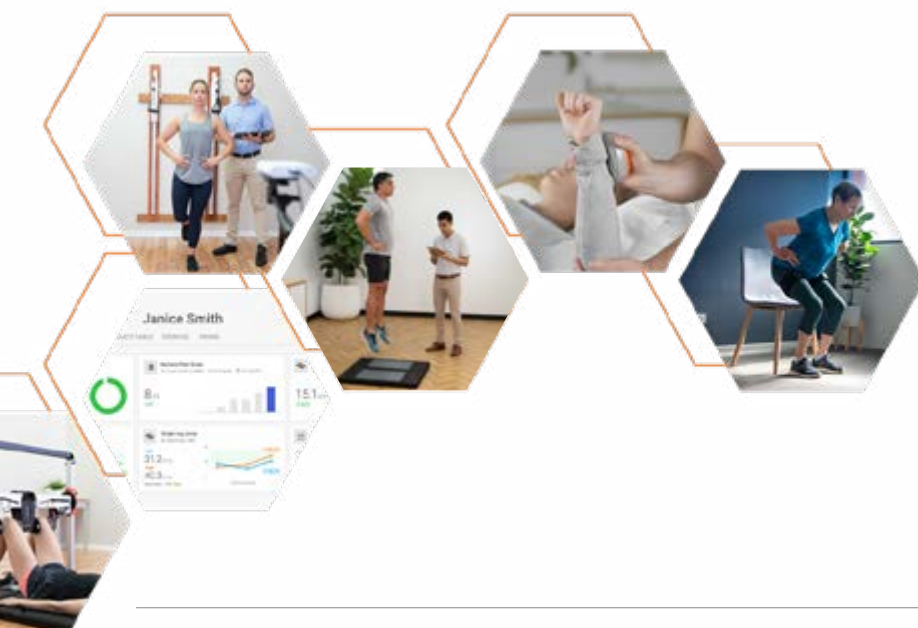
## Core Research Priorities

To use VALD's range of human measurement technologies to:

- Profile strength and movement competency across different populations.
- Quantify the effectiveness of operative and nonoperative interventions for common musculoskeletal injuries.

The VALD Applied Research Initiative also seeks to:

- Use data from VALD's human measurement technologies to drive decision-making through predictive analytics.
- Combine insights from data with human reasoning to improve the effectiveness of rehabilitation.
- Identify and implement novel ways to use technology to improve exercise adherence.



## Key Focus Areas

The populations of most interest to VALD are outlined below. These have been identified as key populations because of increased demand from Governments for innovative healthcare solutions, notoriously low funding in the past, and their anticipated burden on healthcare systems.

### Ageing populations and falls risk mitigation

As people age they are at an increased risk of acute and chronic musculoskeletal injuries and adverse events such as falls. Physiological changes with age, such as sarcopenia, osteoporosis, postural instability, gait disturbances, and reduced muscle strength are all known physical risk factors.

VALD is committed to supporting researchers in understanding how to identify at-risk individuals and stop or slow the development of these risk factors through the promotion of exercise interventions.

- Interventions that support older populations to maintain their quality of life as they age and live independently for longer.
- Interventions targeted at falls risk mitigation.
- Implement data-driven solutions to help slow the functional decline in older populations.

### Hip and knee osteoarthritis and joint replacement

Osteoarthritis is a frequently managed musculoskeletal condition, with hip and knee joints regularly affected. Joint replacement surgery is a common intervention to manage hip and knee osteoarthritis, however elective surgery waitlists are increasingly difficult to manage, while between 10% to 30% of patients report dissatisfaction following joint replacement.

VALD is committed to supporting projects aimed at reducing waitlists and improving outcomes through targeted screening and intervention.

- Interventions that identify and prioritise patients with greater physical and functional limitations.
- Examine the ability to identify patients suitable for non-operative interventions.
- Pre-operative interventions and physical characteristics that impact post-operative outcomes.

### Providing remote care

Remote care enables patients to access medical services from the comfort of their own homes, reducing the need for in-person visits and improving access to healthcare for people in remote or underserved areas. Remote care also enables workforce efficiency in the health sector through improved visibility of the patient's current status.

VALD is committed to supporting projects aimed at demonstrating the efficacy of musculoskeletal health services delivered remotely:

- Examine the feasibility of using VALD digital technology to implement health interventions remotely.
- Examine the feasibility of a patient-operated strength measurement device at home to monitor progress remotely.
- Preference will be given to remote care solutions that also address research priorities relating to the aging population and lower limb osteoarthritis.

## Funding requirements

VALD has allocated a total of \$100,000 AUD for round one of this initiative and each applicant can apply for a maximum of \$50,000 AUD. The quality of application must scale with the requested funding amount. We intend to approve applications across a range of budgets and timelines, so do not feel obliged to request the maximum funding amount. In fact, requesting less will improve your chances of success.

VALD is committed to supporting excellent applied research, in particular where the research is performed in underserved and developing countries. Applications where the principal investigator is based in underserved or developing countries as well will be assessed favourably.

## How to submit

Please complete and submit the [application form](#). The project proposal should be attached as a PDF file and include the following:

- Project title.
- Funding requested.
- Principal investigator, name, current clinical institution, academic institution and email address.
- CV of principal investigator attached as a PDF.
- Additional investigators, including names of their institutions.
- Project proposal.

For more information and questions related to your proposal, please email [info.grants@vald.com](mailto:info.grants@vald.com) with your name and institution in the subject line.

## Assessment Rubric

	Excellent (3)	Adequate (2)	Poor (1)
<b>Rationale for proposed project</b>	Rationale clearly stated and project aims strongly align with VALD core research priorities and target populations.	Rationale stated and project aims somewhat align with VALD core research priorities and target populations.	Rationale vaguely stated and project aims do not align with VALD core research priorities and target populations.
<b>Impact and Innovation</b>	The project plan is ambitious and proposes many ways of doing things better and/or doing better things in its field.	The project plan is moderately ambitious and proposes a few ways of doing things better or doing better things in its field.	The project plan is conservative and does not propose ways of doing things better or doing better things in its field.
<b>Personnel and Collaboration</b>	The researcher or research team has an excellent track record and draws upon expertise across different fields and institutions.	The researcher or research team has a moderate track record and draws upon expertise across different fields.	The researcher or research team has a poor track record and does not include researchers from diverse fields.
<b>Project plan and timeline</b>	The project plan is feasible and well-articulated. All of the milestones are realistic, clearly identified, and address the lifecycle of the work, including planning, ethics, data collection, analysis, and reporting.	The project plan is well articulated and somewhat feasible. Most of the milestones are realistic, including planning, ethics, data collection, analysis, and reporting.	The project plan is not well articulated nor feasible. The milestones and timelines may be unrealistic and unclear, including planning, ethics, data collection, analysis, and reporting.
<b>Justification of proposed budget</b>	The project costs are clearly articulated and defensible. Each budget item is well justified and necessary to complete the project plan.	The project costs are relatively well articulated and defensible. Some budget items are not justified and do not relate to the project plan.	The project costs are not well articulated and there is some question as to the need for the funds based on the information provided.

### How will the project be managed?

- VALD will request quarterly updates during the project to review its status and progress against planned deliverables.
- Deliverables will be defined up front along with due dates in the Project Plan.
- VALD will provide a point of contact to ensure the research remains on track and delivers business value.
- A final report at the end of the project will be delivered to VALD.

### Who owns the intellectual property of Developed Material?

- Ownership of, and all Intellectual Property Rights in the Developed Material will vest in VALD.
- VALD grants the Research Recipients a license to use the Developed Material for the duration of the Project Term.
- The Research Recipient must explicitly define any background IP they bring to the project. The Recipient will retain their background IP at the conclusion of the project.

Before funding and equipment are distributed and before any award pursuant to an application becomes binding on either, VALD, the principal investigator and their institution will be required to enter into a contract with VALD that covers the terms and conditions of the Project, including ownership of intellectual property. The successful Applicant will be required to comply with the Contract including the Legal Terms and Conditions, the Applicant's proposal, and the Contract, which shall form the legal agreement with VALD after acceptance by VALD. Any subsequent changes to the legal agreement will be made only in writing.

Applicants will provide a brief rationale for how funds will be used. The optimal allocation of funds to achieve the grant objectives will be the responsibility of the Research Recipient.

The funds are for the proposed Project only and are non-renewable. Any in-kind equipment provided by VALD for the Project may remain at the institution following completion of the Project at VALD's discretion. Future relationships between Research Recipients and VALD are possible but not guaranteed and will be considered on a case-by-case basis.

Institutional Review Board approval is required for all Projects involving human participants. It is the responsibility of the principal investigator to ensure that approval has been obtained and proper protocols are followed at all times.

Lay summaries of completed work will be requested quarterly. A final report, detailing the research achievements and outcomes against the Project plan, will be required at completion of the Project.

All publications and conference proceedings, and/or presentations arising from research funded in whole or in part by VALD, must acknowledge support from VALD consistent with the contract executed for the Project.