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Strategic Advice
Commercialisation
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July 2019

Australian Regenerative Medicine Institute

Strategic Plan 2020–2025

MONASH University

ARMI
AUSTRALIAN REGENERATIVE MEDICINE INSTITUTE

The Australian Regenerative Medicine Institute is supported by grants
from the State Government of Victoria and the Australian Government

1.0 Executive Summary

1.1 Introduction

The Australian Regenerative Medicine Institute (ARMI) has established a very strong foundation as a high-quality research institute in its first 10 years of operation. It has grown significantly into a successful research institute with a well-established national and international presence based on a number of significant scientific discoveries to unlock the regenerative capabilities of the human body.

ARMI's researchers have secured significant competitive research funding, established unique enabling research infrastructure, expanded in size and scope by targeted recruitment of exceptionally talented scientists and developed undergraduate and post graduate education programs. Of particular note is the partnership between Nature Partner Journals and ARMI in establishment of the Nature branded journal NPJ Regenerative Medicine.

ARMI has undertaken an impressive journey to transform into a pre-eminent research institute providing excellence in research. The foundations used will enable ARMI to continue on this journey making this the 'Decade of Direction'.

> ARMI is poised to become a signal institution on the international regenerative medicine stage.

In developing the ARMI 2020–2025 Strategic Plan, information and perspectives were collected, collated and condensed from multiple stakeholders. Consultation involved individuals and groups representing ARMI employees (executive team and professional staff), the ARMI Leadership Advisory Board (ARMILAB) and the external environment (research ecosystem and Government). In addition, the insights and recommendations from the Review of ARMI, chaired by Professor Roger Summers, conducted on 31st July and 1st August 2018 were a valuable reference in preparing this Strategic Plan.

The five-year Strategic Plan highlights key considerations that need to be addressed to ensure ARMI retains its status as a leader in regenerative medicine research in Australia and worldwide. The commentary and recommendations presented herein provide a framework to drive the next phase of ARMI's development.

ARMI is an institution that delivers scientific excellence, educational and research outcomes. The next phase of ARMI's development is based on its relevance in the context of medical care, innovation, translation to the clinic and ultimately ARMI realising its greatest impact by improving the quality of life for individuals.

1.2 Four Key Enablers

The 2020–2025 ARMI Strategic Plan is based on six strategic focus areas with aligned objectives, that uses four key enablers to support implementation.

1. **A stronger leadership and operational structure** to support ARMI's increased scale
2. **Greater diversity and sustainability of funding**
3. **A phased implementation** in line with appropriate organizational consultation and budget considerations
4. **Increased multidisciplinary collaboration** with academic and industrial partners particularly noting a strong engagement with Monash University, leveraging capability to support institutional objectives and enterprise endeavor.

1.3 Four Core Values

Through consultation with multiple ARMI stakeholders and from consideration of forces that impact on the operation and function of like institutions, this 5-year Strategic Plan identifies four core values that should underpin ARMI:

CORE VALUES

Creative and multidisciplinary

Collaborative and international

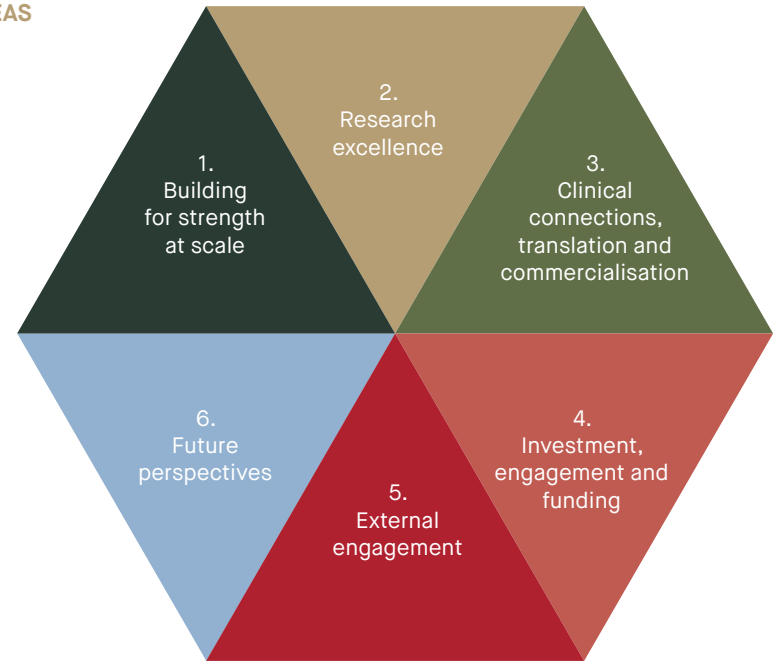
Scientific excellence

Enabling talented early to mid career scientists

1.4 Six Strategic Focus Areas

Adoption of these core values, together with a concerted effort in the following six strategic focus areas will ensure long-term success for ARMI.

STRATEGIC FOCUS AREAS



1.5 Major Forces

In addition to these six focus areas, enduring growth for ARMI will be achieved by a strategic plan that takes into consideration the major forces at play. These include:

1. The opportunities of operating within a world-leading University
2. Drivers for sustained growth; excellence, national and international relevance and enterprise
3. Organisational structure, leadership and culture.

1.6 Execution

Implementation of this plan will be based on a phased approach in which foundational elements are addressed first, thereby creating the basis for further development and advancement.

The responsibility for delivering this plan will be divided amongst all key stakeholder groups including (i) ARMILAB and its subcommittees, (ii) ARMI Executive team, (iii) Group/Scientific Theme Leaders, and (iv) Monash Executive and other Monash support departments.

Decade of Delivery

The Australian Regenerative Medicine Institute (ARMI) was established through a joint venture between Monash University and the Victorian Government created in 2009. In 2019 it proudly celebrates its ground-breaking first decade of operations.

Through the unwavering support of the Faculty of Medicine, Monash University, its executive team, philanthropic and industry partners, advisory board, and researchers, ARMI has grown to 21 research groups to become one of the world's leading regenerative medicine and stem cell research centres.

ARMI has been central to the development of a thriving regenerative medicine and stem cell research sector in Australia. Early in its history ARMI supported the Australian membership of the European Molecular Biology Laboratory (EMBL), attaining the appointment of the first two Australian EMBL Group leaders. In 2012 ARMI continued its global relevance by opening the first international node of the Systems Biology Institute at Monash University hosted by ARMI and in partnership with CSIRO and Bioplatforms Australia launched the Australian Bioinformatics Network. This continued with ARMI and its executive team being instrumental in the establishment of The Australian Node of Canada's Center for Commercialization of Regenerative Medicine (CCRM Australia).

The growing maturity of ARMI's first decade of implementation and growth is reflected in its rapidly increasing publication rate, the number of international collaborations, partnerships, new on-line journals, numerous book chapters and a successful grant application rate higher than the national average. Today ARMI proudly consists of more than 200 people comprising academics, technical staff, students, administrative support and numerous affiliate appointments.

ARMI has undertaken an impressive journey to transform into a pre-eminent research institute providing excellence in research which drives everything they do.

ARMI's first two strategic plans were based on establishment and accelerating growth. The period 2020–2025 marks the beginning of the decade of delivery as ARMI defines its remit in an increasingly diverse, international regenerative medical research sector.

ARMI's purpose is to perform cutting edge biomedical research in the area of regenerative medicine. The focus of the next five-year plan provides a clear strategic direction as ARMI comes of age and builds the future of regenerative medicine through sustained scientific research excellence. In 2020 to 2025 ARMI will create impact by linking its research to the clinic and achieving translational aims though a culture of ownership, measured strategic growth and ambitious approaches to scientific endeavour.

3.0 Drivers for Growth and Success

ARMI's strategic intent in the Decade of Delivery will be expressed through the Four Pillars of Excellence, Relevance, Enterprise and Organisational Structure for Leadership and Culture, providing the foundation for growth and success:

3.1 Excellence

It is essential that ARMI maintain the highest possible commitment to excellence in all operations, not just in the pursuit of scientific and research outcomes. This pursuit of excellence needs to be a central aspiration and guiding principle for all in ARMI. Assessment of performance should reference measures of excellence in an international context.

3.2 Relevance

As the role of academic institutions expands and continues to evolve, there is far greater public and government scrutiny on the activities and performance of our universities and medical research institutes. Now more than ever there is a greater expectation that research outcomes deliver impact for society, the environment and our world. A regenerative medicine institute such as ARMI can have profound impact by executing excellent, directed research that leads to the discovery and delivery of new regenerative therapies for a host of diseases. It is critical that ARMI assess the scope and relevance of its research activities to ensure these translate into impact far beyond discovery.

3.3 Enterprise

Rather than respond to pressure points within the university system and medical health research sector, ARMI has the opportunity to proactively lead change, innovate, challenge the status quo, establish ground breaking enterprise and new ways of translating research.

Financial pressure and changing stakeholder expectations are driving this change. Now, more than ever before, there is far greater competition for research funding. Furthermore, funders want research outcomes translated into technological advances and or better health care and medical treatments. The general public and patients want greater impact from research. For research institutions to be sustainable and autonomous, new approaches to funding are essential.

These forces can be harnessed to create a new mode of operation for research institutions. One where they proactively engage with industry and in the case of ARMI specifically, the clinical community to jointly develop and deliver better health care. In isolation, ARMI's research outcomes are of limited value unless they can be translated or integrated into a new treatment or regenerative medicine.

Thus, the challenge and opportunity for ARMI is to be transformative; to develop a new operational and engagement paradigm that sets it apart from other institutes. ARMI in 2025, in addition to making breakthrough scientific discoveries, should be conducting research that is integrated with medical and health care and creating value for industry.

3.4 Organisational Structure, Leadership and Culture

For ARMI to grow, remain successful and internationally acclaimed, it is essential that the enterprise be led and managed by people that share a common purpose and vision. Moreover, the institutional values must be understood, engrained and exemplified by all, but especially by its leaders. Although a strategic plan provides a framework for growth, its success depends on concerted, constructive actions from leadership and a structure that delivers effective governance, management and a productive environment where staff thrive.

ARMI within the National and Global Context

Since inception, ARMI has recognised the benefit of partnering with the world's leading research organisations for mutual benefit. This has significantly helped the rapid development of the institute's research program and enhanced its international reputation.

Strategic linkages have been formed with organisations for their unique contribution to the institute. ARMI's extensive international links and partnerships will contribute to its continued success and ability to engage with diverse funding opportunities for collaborative projects locally, nationally and internationally.

These include:

The European Molecular Biology Laboratory and EMBL Australia

When Australia became an Associate Member of the European Molecular Biology Laboratory (EMBL) in 2008, the Australian Department of Industry allocated responsibility for all EMBL-related activities in Australia to ARMI through Monash University.

ARMI has been integral to the establishment of the EMBL Australia Partner Laboratory with nodes in Victoria and New South Wales, the EMBL Australia Bioinformatics Resource (based at the University of Queensland and later at The University of Melbourne), the national EMBL Australia Training Programs and other EMBL related programs in Australia.

ARMI continues to maintain links with the EMBL, Europe's leading life sciences research laboratory and works closely with Monash's Biomedical Discovery Institute (BDI) which currently hosts EMBL Australia.

The Systems Biology Institute and SBI Australia

SBI Australia has been established at ARMI as the first node of Japan's internationally recognised Systems Biology Institute.

The node connects and promotes collaboration between Japanese and Australian research and industry partners, and facilitates the sharing of scientific technology, resources and expertise. SBI Australia develops and supports the Australian systems biology research community, through the provision of training and advice, facilitation and making national and international linkages.

In the short time since its establishment, SBI Australia has attracted national and international attention. Unique research programs adopting a system biology approach have been progressing at ARMI with international collaborators.

The Chinese University of Hong Kong (CUHK)

The CUHK-Monash University Innovation Alliance has been established as an integrated transnational collaboration to co-develop and co-invest in thematic areas of shared excellence in medical education and research. Synergistic collaborations are expected to lead to the development of high impact research programs and innovative medical education platforms.

Formed between the medical faculties of each university, the Alliance aims to generate collaborative research enterprises that will have long-term, significant impact on biomedical, health research and education for both institutions.

The research initiatives are currently focused on translational medicine:

- Stem cell biology and regenerative medicine
- Innovative medical devices

The Jackson Laboratory

ARMI has a cooperative agreement with the internationally recognised US research centre, the Jackson Laboratory, an independent non-profit biomedical research institution dedicated to contributing to a future of better health care based on the unique genetic makeup of each individual. The Laboratory's mission is to discover precise genomic solutions for disease and empower the global biomedical community in the shared quest to improve human health.

The agreement creates opportunities for exchange of faculty, postgraduate students and research staff; establish programs in areas of teaching, research or university administration and identify other areas of possible interest and collaboration.

The Jackson Laboratory brings key mouse biology expertise including husbandry training and unique mouse model services to the Institute.

CCRM Australia (Centre for Commercialisation of Regenerative Medicine, Australia)

CCRM Australia is a not-for-profit organisation established to address bottlenecks in the translation and commercialisation of regenerative medicine discoveries in Australia. Many of Australia's leading researchers, industry, service providers and advocates have come together in the most extensive national regenerative medicine industry-led consortium to support the creation of CCRM Australia.

ARMI has been instrumental in its formation. CCRM Australia is modelled on the highly successful CCRM in Canada. As a member of the Global CCRM network, CCRM Australia is a partner to a leading-edge industry consortium.

CCRM Australia brings to the Institute increased visibility to a global network of world-leading companies. It also provides business skills, leadership, potential funds for product development, and receptor capacity for technologies and products.

MDI Biological Laboratory

Mount Desert Island Biological Laboratory

The Mount Desert Island Biological Laboratories (MDIBL) and ARMI have finalised an MOU that outlines the intent of the MDIBL and ARMI to collaborate in scientific, education and public and political relations activities that are mutually beneficial and serve to advance both organisations.

The new agreement is designed to facilitate the creation of an international exchange program between faculty and students at the two research institutions, including graduate students conducting PhD thesis research at the MDI Biological Laboratory and Monash University, and Monash University medical students.

The partnership also opens the possibility of developing biotechnology business connections between Maine, USA and Australia in areas of shared interest.

Research at ARMI involves multi-disciplinary teams across all its scientific groups, their collaborations with researchers locally, nationally and internationally are expanding rapidly, providing an exciting environment for novice, early career and established researchers to pursue their projects.

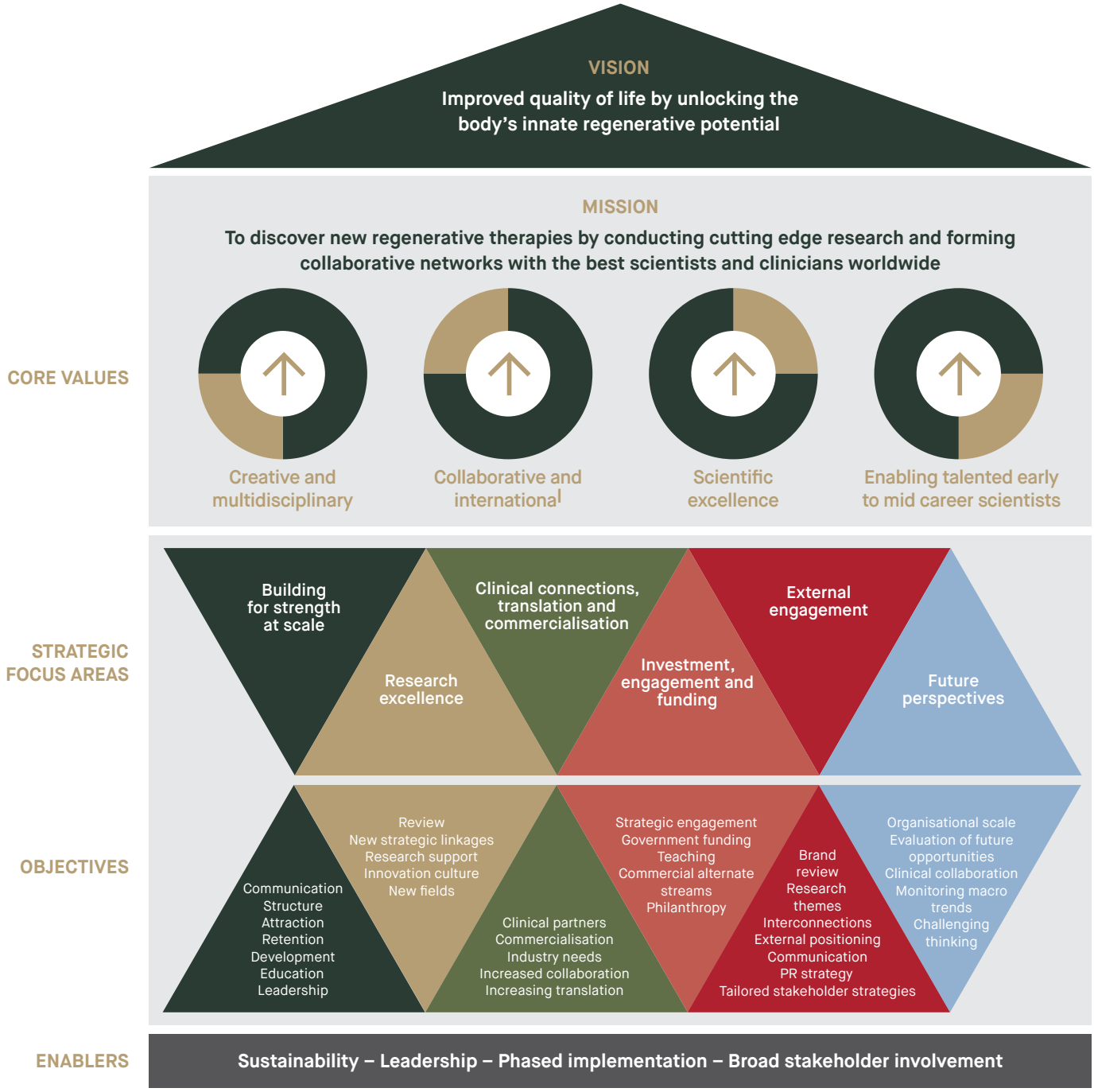
ARMI within the Monash University Context

As outlined in the 2015–2020 Monash University Strategic Plan, a key expectation is that excellent performance will be enhanced by applying enterprising approaches to partnerships and collaborations with industries and governments to maximise the impact of research. Moreover, the plan calls for focussed growth: "in the long-term interest of the institution, we should not become larger in every element, but should instead target growth to those areas that support our long-term ambitions". It is essential that ARMI's strategic plan aligns with that of Monash University and builds upon their strategic framework.

However, for its future success, ARMI needs to establish absolute clarity from Monash University as to its position with respect to other university faculties, institutes and major enterprises. ARMI's current financial model is underpinned by substantial investment from the Faculty of Medicine, Nursing and Health Science but this position depends on the support of the current Monash leadership. It will be essential to secure a long-term commitment from Monash to support and fund ARMI's specialised core research facilities. In addition, as much as possible, within the Monash University framework, ARMI should strive to become more autonomous and to take greater responsibility for funding and its operation.

The ARMI Strategic Plan must harmonise with the overarching purpose, vision and plans of Monash University and in particular,

- continue to demonstrate a commitment to excellence in all aspects of its operation, as measured by the highest international standards
- ensure ARMI remains globally competitive, relevant and develops its profile and reputation in the Asia-Pacific region
- describe a focussed and clear purpose and in doing so, target growth to areas that demand and support long-term ambition
- lead to greater financial independence and thus, less reliance on Monash University funding


VISION
Improved quality of life by unlocking the body's innate regenerative potential
MISSION
To discover new regenerative therapies by conducting cutting edge research and forming collaborative networks with the best scientists and clinicians worldwide
CORE VALUES
Creative and multidisciplinary
Collaborative and international
Scientific excellence
Enabling talented early to mid career scientists
STRATEGIC FOCUS AREAS
Building for strength at scale
Research excellence
Clinical connections, translation and commercialisation
Investment, engagement and funding
External engagement
Future perspectives
OBJECTIVES
Communication
Structure
Attraction
Retention
Development
Education
Leadership
Review
New strategic linkages
Research support
Innovation culture
New fields
Clinical partners
Commercialisation
Industry needs
Increased collaboration
Increasing translation
Strategic engagement
Government funding
Teaching
Commercial alternate streams
Philanthropy
Brand review
Research themes
Interconnections
External positioning
Communication
PR strategy
Tailored stakeholder strategies
Organisational scale
Evaluation of future opportunities
Clinical collaboration
Monitoring macro trends
Challenging thinking
ENABLERS
Sustainability – Leadership – Phased implementation – Broad stakeholder involvement

Core Values

This 5-year Strategic Plan identifies four core values that should underpin ARMI:

7.1 Creative and Multidisciplinary

A safe nurturing secure **environment that supports creative thinking and team contributions** is fundamental to good science and already a hallmark of ARMI. This needs to be further promoted and extended into multidisciplinary teams that collectively combine knowledge and expertise from diverse areas. ARMI can lead this by creating opportunities and interfaces where scientists can be exposed to alternative ways of thinking, to jointly develop innovative approaches to research questions. This action should include initiation of projects where ARMI scientists work cooperatively with other researchers at Monash University and elsewhere to address macro problems on a thematic basis.

7.2 Collaborative and International

It is well appreciated that **science and research is a team activity**; gone are the days where a single investigator in isolation drives profoundly impactful breakthroughs. With the advent of a digital world, massive data sets and artificial intelligence poised to impact in unappreciated ways, research is now conducted very differently than it was a decade ago. New knowledge is presented daily and change is constant.

Teams of people working in a collaborative and coordinated manner can best exploit the opportunities presented in this ever-evolving workplace. ARMI appreciates the power of national and international collaboration and should strategically strive to build further links aligned to their research/scientific themes. This will provide access to international funding opportunities, aid in recruitment of talented researchers and generate more high-profile publications. ARMI's existing relationship with the EMBL and Japan's RIKEN, exemplify the value and importance of international collaboration.

7.3 Scientific Excellence

A core value for ARMI is the ongoing pursuit of scientific excellence. Essential to ARMI maintaining its excellent reputation and credibility is the application of best-practice processes and governance throughout its research, education and management. ARMI will provide access to resources and services required to allow the science to flourish.

Regenerative medicine research has been widely proclaimed as a new approach that will generate better ways to treat degenerative disease. The expectations are high; outcomes will only match expectations by applying rigour and a constant drive for scientific excellence.

7.4 Enabling Talented Early-to-Mid Career Scientists

Recruitment of the best and brightest scientists is a vital ingredient to long-term growth. New talent should be recruited not only based on their academic achievements but also by personal attributes that demonstrate a capacity to collaborate, build teams and work in an interdependent manner. Thereafter, ARMI must create an environment where scientists thrive and flourish.

In accord with its mission, ARMI should provide training and educational opportunities for researchers that enable them to effectively translate their research outcomes: to better engage with clinicians and industry.

Adoption of these core values, together with effort on the six strategic focus areas will position ARMI for long-term success. However, we contend that working on one strategic focus area alone will not lead to growth and success. These activities should be considered as interdependent: progress and achievement in one area is dependent on others and a concerted approach on all strategic focus areas is required.

A number of structural measures can be applied to strengthen ARMI and build scale. These activities should address both internal operations (within ARMI and Monash) and external perception and branding. Initially this should include refinement of organisation structure and process to refocus and revitalise ARMI activities. This will serve to galvanise all stakeholders; to secure commitment to the Vision, Mission and Strategic Plan.

8.1 Building for Strength at Scale

Expand the ARMI Leadership Advisory Board (ARMILAB) to include representation from the Faculty of Medicine, Nursing and Health Science as well as representation from the Monash corporate leadership or Executive. This will serve to enhance the relationship with Monash University, align ARMI's deliverables with Monash's expectations and provide insights regarding financing of the Institute.

Re-establish a high-profile Scientific Advisory Board (SAB) to assist with providing direction and implementation of the Strategic Plan. Develop Terms of Reference for ARMILAB and the SAB so that expectations and roles are understood. Moreover, the composition of these governance groups should be diverse and balanced. It will be critical to ensure there is strong representation from highly experienced external people with strong track records of success in their respective areas of expertise.

Review and strengthen ARMI leadership by the appointment of a Deputy Director and a Director Strategy & Business, formation of an ARMI Executive management team that includes Research Theme Leaders together with the Director, Deputy Director, Director Strategy & Business, External Engagement and Education and Training Leader. Given the need to deliver on the 5-year Strategic Plan, the ARMILAB, SAB and ARMI Executive should interact frequently, both formally and informally.

Align closely with Monash University's strategy for focussed growth in target areas by re-organising the existing research groups into scientific themes. Scientific themes will draw together the rich multi-disciplinary expertise to develop solutions to real-world problems within a local context. The appropriate scientific themes will provide an interdisciplinary setting for individuals, established research concentrations and partners to work collaboratively and capitalise on the advantages presented by the unique locality and existing areas of research excellence. This will promote greater interaction between Groups and enable a greater effort to be directed towards a common area.

There is no prescribed method for establishing themes; they could be based on specific health problems or diseases or biological/scientific areas of commonality. The Institute may be organised around its five scientific themes:

1. Heart and Muscle development and regeneration
2. Neural regeneration
3. Stem cells and regeneration
4. Immunity and regeneration
5. Organ engineering and synthetic biology

Alternatively, to project a stronger message of purpose to the external world and engage more strongly with larger funding organisations, themes could be assembled around specific diseases; Cardiac, Neurodegenerative, Musculoskeletal, etc. A key aspect of this strategic organisational change is for ARMI to involve the entire workforce in this decision-making process. Subsequently, Scientific Theme Leaders should be part of the ARMI Executive. Once the scientific themes have been defined, these should be used in all communications and key messaging.

Proactively expand relationships with industry and the health and medical community to facilitate direct input into the direction and scope of research projects.

8.2 Research Excellence

ARMI is one of the largest regenerative medicine and stem cell research institutes in the world and addresses some of the most significant health challenges facing society. This pillar focuses on further strengthening the structure needed to deliver world-class research.

Optimise internal processes to provide its researchers with the necessary resources and support needed to undertake the highest quality research. Long-term research excellence will depend on a strong support foundation to pursue large grants both within Australia and overseas, a formalised approach to mentorship of early career researchers with emphasis on scientific excellence and rigour, and efficient operational systems to ensure restrictions and diversions of researchers on non-core processes are minimised.

Strengthen the linkages with complementary institutes at the forefront of their fields worldwide to leverage ARMI's ability to pursue transformational research goals, and the significant funding opportunities that they can command.

Focus research on the most significant unmet needs in regenerative medicine as developed through collaboration and engagement with industry, significant funding organisations and philanthropists.

Ongoing review of outcomes and achievement to drive research excellence. Accordingly, ARMI Leadership should ensure that an international perspective is used to assess performance.

8.3 External Engagement

ARMI's brand and status can be enhanced by a strategic approach to how it communicates and presents itself to the wider world.

Utilise recurring scientific and research themes in all external communication and engagement. It will be imperative to continue established national and international collaborations and partnerships and to build upon these. Greater effort should be directed toward enhancing local relationships particularly with other Monash institutes, clinical departments and Monash Health. The strong relationship with the European Molecular Biology Laboratories (EMBL) has been very beneficial in building the ARMI brand and serves as an excellent model to increase profile and reputation.

Develop new relationships with other institutes and centres with high profiles worldwide such as the Wake Forest Institute for Regenerative Medicine, the Sanford Consortium for Regenerative Medicine, the Fraunhofer Institute, the Boston Stem Cell and Regenerative Institute and the like. The early-stage partnership with the CCRM Canada and the involvement of ARMI in establishing CCRM Australia exemplifies the value of these partnerships.

Maintain constant focus on external engagement and brand building over the next five years as the regenerative medicine sector rapidly grows and competition for talented researchers and funding increases. The strategy will involve ongoing actions that strengthen the external position by highlighting ARMI's values, behaviours, research achievements and strong interconnections/ partnerships via consistently aligned communications.

Develop a public relations plan that guides external engagement tasks for all levels of ARMI leadership, including the ARMILAB. The plan should take advantage of the traditional media platforms and social media. A high-profile Australian with a passion for medical research and health care, acting as an ARMI Patron should be identified and promoted.

8.4 Investment, Engagement and Funding Streams

An objective for ARMI over the next 5 years is to become less reliant on Monash University for funding. For this to be achieved ARMI needs to use a range of approaches to diversify its funding base. The exceptionally good performance by ARMI during its short history provides a great foundation to build upon.

Increase ARMI's profile within the biotechnology and pharmaceutical sector utilising a strategic approach that positions ARMI for mutually beneficial partnerships, to secure new sources of funding for ARMI Groups.

8.4 Investment, Engagement and Funding Streams continued...

Develop new leadership positions within ARMI including the appointment of a Deputy Director and Director of International Strategy and Planning. Closer, more frequent engagement with the Industry Advisory Committee of ARMI to identify different opportunities, whether they be engagement with small and medium sized enterprises, large industry or multinationals should be strongly encouraged. Selected ARMI representatives have close links with key government and philanthropic funders and these should be enhanced. These relationships should continue to be nurtured while at the same time seeking new investments and philanthropic funds through collaborations, grants, industry supported projects nationally and internationally.

Implement a customised approach to funding engagement recognising that different agencies and potential partners have different drivers and expectations. ARMILAB and the Director of Strategy and Business should lead and assist with identification and brokering of new funding opportunities for ARMI. These activities must harmonise with Monash University so that a single value proposition is presented to potential investors, especially those from industry, Government and philanthropists.

Ensure that research discoveries and outcomes are effectively communicated and showcased. Regular well managed engagement programs need to be established that showcase, court and inform these groups utilising the highest-level individuals across ARMI and Monash University. Multiple mechanisms should be used to promote ARMI: including an annual 'Research Week' featuring presentations (external and internal), informal "meet the researcher" sessions targeting the general public and culminating with a Research Dinner where an international leader in Regenerative Medicine reflects on ARMI research in the global context.

Expected outcomes from the range of strategic activities directed towards this focus area include:

- Appointment of a Deputy Director
- Organisational review positions aligned as:
  Director International Strategy and Planning
- Manager of Internal Engagement and Operations
- Increased research investment
- Greater diversity in source of research funding, especially increased funding from industry and philanthropy, thus mitigating financial risk and increasing sustainability
- Enhanced external profile of ARMI

8.5 Clinical Connections, Translation and Commercialisation

For ARMI to be recognised globally as a world-leading regenerative medicine institute, it is essential that it build a reputation for conducting research that directly impacts on clinical medicine and practice.

Strengthen the clinical links, partnerships and pathways necessary for ARMI researchers and their discoveries to connect more quickly and accurately with the clinical needs.

Focus research on themes with strong links to clinical areas. Identify clinicians with a passion and strong interest in regenerative medicine research and invite them to join ARMI research groups. These individuals should be involved in all aspects of research from planning, execution and assessment phases; they can provide clinical context and perspective to Scientific Themes. The intended relationship is bidirectional whereby both parties learn and influence each other to produce outcomes that are relevant to clinical and community needs.

Facilitate translation of ARMI research into clinical practice through collaboration with key clinical experts aligned with Scientific Themes, by publication of research in high profile scientific and medical journals, and participation in seminal international conferences and seminars. This is a key component in maximising the impact of ARMI research work on patient outcomes. Increased translation of ARMI research into clinical practice can be achieved by strategic engagement within different precincts, including:

8.5 Clinical Connections, Translation and Commercialisation continued...

- Immediate: Monash clinical capability, Monash Heart Hospital and the Monash Children's Hospital
- Local: Cancer/Oncology – Victorian Comprehensive Cancer Centre, Peter Maccallum Cancer Centre; Heart/Cardiology – The Alfred Hospital and the Monash Heart Hospital; Orthopaedic – The Alfred Hospital and Epworth HealthCare; Genetics – Murdoch Children's Research Institute, The Royal Children's Hospital; Neurology – The Austin Hospital and The Royal Melbourne Hospital
- CSIRO (for manufacturing and technology transfer)
- CCRM Australia (for commercialisation)
- National: The Queensland Brain Institute, The Royal Adelaide Childrens
- International: Regenerative medicine institutes, specific international clinical institutes of excellence (for example The Berlin Heart Hospital)

Focus on translational companies and individuals that are best placed to drive commercial translation of ARMI research. Proactive identification of those that can either contribute to, or exploit ARMI research, should be led by the ARMI Strategic and Business Leader and or ARMILAB. Research Group Leaders should embrace this concept and invite key external stakeholders onto their teams. As a result, researchers can develop a greater understanding and appreciation of industry needs, the commercialisation process and how their research can be protected and translated for commercial gain.

8.6 Future Perspectives

This focus area highlights the need for ARMI to be engaged on research activities that address impending macro problems in health and science.

Develop a clear perspective on what research is needed for tomorrows problems and how these large needs can be addressed with multidisciplinary and collaborative research. This will include a deep awareness of issues presented by age-related degeneration, chronic disease, availability of organ donors and technological deficits.

Investigate the financial and business drivers that will direct allocation of funds for scientific research in the future. Progressive researchers must fully appreciate the evolving perspectives of government and industry and focus on the key features they define during the translation of research into products and new technologies.

Develop a global perspective on scientific operations and research themes at all levels including ARMI management teams, ARMILAB and SAB. This can be supported by proactive engagement with futurists, industry, the clinical community and key opinion leaders external to Monash University.

9.0 Enablers

9.1 Leadership

The concepts of leadership and governance encompass strategic direction, plans and policies, effective oversight, regulation, motivation, and partnerships that integrate the research initiatives and their building blocks to achieve results.

Key priorities for ARMI leadership across the next five years under this framework are:

- Extend and strengthen the executive leadership team to include the Scientific Theme leads
- Rearranging ARMILAB to consist of Monash representatives, individuals with contacts to philanthropy, industry and government (national and international)
- Establish/re-establish key committee(s) to support the strategic direction of ARMI e.g. Scientific Advisory Committee
- Developing a formal succession and workforce plan and mentoring program
- Providing support for the development of key individuals

9.2 Sustainability

Since its inception in 2009, ARMI has achieved a solid reputation in the regenerative medicine world. The alignment and integration of ARMI's sustainability vision is incorporated into the overall corporate strategy which will qualify its continued growth. Sustainability will be achieved with the execution of guidelines and initiatives to manage the development of good sustainability practices throughout ARMI in the next five years based on the topics to be addressed, with objectives and outcomes around the six focus areas including a 5-year financial plan that supports these goals. These goals are to be monitored over the course of the year, with annual reporting on the initiatives.

9.3 Phased Implementation

The implementation phase of the strategic plan translates into policies and procedures for various individuals and areas of ARMI. **A three-phased approach will ensure a successful implementation**. At its helm, will be a very visible leader to communicate effectively the necessary steps of the implementation.

Everyone in the organisation has a role and is an integral part of ensuring the strategic plan is successfully executed.

Follow-up endeavours will be determined with the use of performance measuring tools. A strategic roadmap is also helpful, as it identifies the key ingredients that direct the organisation's performance.

Implementation must be followed up by assessment to determine strategic success or where realignment or rethinking is required. The strategic plan identifies the key areas that should be assessed to direct the organisations future performance.

9.4 Broad Stakeholder Involvement

There is increasing recognition that broad stakeholder involvement health research priorities to ensure high legitimacy and acceptability of the priorities selected. Stakeholders must play a central role in setting up and achieving the priorities and objectives of the strategic plan. It is important that all stakeholders are involved in the development of projects and not just the direct beneficiaries of an initiative. A stakeholder matrix such as the 'Importance and Influence Matrix', will help to identify which stakeholders are involved and the degree of influence and power a stakeholder has to affect the outcome of an initiative.

ARMI Internal	Monash	External
ARMILAB and specialty committees	FHMNS*	Research partners
Institute management	Research & RI	Clinical partners
Theme leaders	Enterprise	Philanthropists
Group leaders	ERDA**	Government
	Monash Innovation	Industry
	Global Engagement	

*Faculty of Medicine, Nursing and Health Sciences **External Relations, Development and Alumni

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