Meeting the need and the challenge:
What decadal future for the Faculty of Medicine?

Volume 2:
General Considerations (Workshop 1)

Directions in Education, Teaching and Learning (Workshop 2) &

Directions in Research (Workshop 3)
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# Paper No. 3:  
General Considerations (Workshop 1)  
Directions in Education, Teaching and Learning (Workshop 2) & Directions in Research (Workshop 3)

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Introduction

About this Document

This document serves three purposes:

- It sets out the record of the discussions that took place in August 2017, with their focus on the intended future of education in the Faculty of Medicine
- It fulfils a similar role with regard to Workshop 3 (September 2017), with its concentration on directions in research
- It locates both records within the wider frame of reference that Workshop 1 participants began shaping in May 2017.

In accordance with the approach agreed in March of this year, the document now stands as the second iteration of the Faculty’s statement of decadal intent – a statement that is expected to assume its definitive shape in December 2017, as the year draws to a close. As such, it integrates the material set out in the Workshop 1 Record with those of Workshops 2 and 3 into a single volume and continuous narrative.

One further iteration will occur on the way to the document becoming the definitive summation of the Faculty’s strategic intentions, at the close of the 2017 cycle of workshops: it will occur after the fourth and last workshop (end-November 2017), with its focus on a summation of the Faculty’s argument for change.
About the Broader Reflection

The workshops this document references were the first three in the planned cycle of four such events, designed to canvas the essentials of the Faculty’s future business and associated priorities.

Beginning with the initial May workshop, dedicated to whole-of-Faculty matters, and its August and September successors, concerned with the Faculty’s education and research activities respectively, the first cycle of the Faculty’s ‘long-horizon’ reflection will conclude with Workshop 4, scheduled for November 2017.

As was the case for all workshops, the outcomes of the participants’ deliberations are incorporated into this document, designed as it is to build on its predecessors on the way to becoming the Faculty’s considered statement of decadal intent.

Additional information on the Faculty’s strategic reflection and its process can be found at Appendices 1 and 2.

About Editorial Licence

The author has taken care to set out the substance of the group’s discussion in a manner faithful to the intent of the original comments.

Nonetheless, with readability as well and the development of a consistent argument that the articulation of credible strategy demands, the author has exercised a measure of editorial licence in bonding individual notions and concepts into in more structured and purposeful form than the flow of lively discussion can yield.

Readers are invited to turn their minds to the propositions that the material offers, and take the opportunity to comment upon them through any one of four channels, being:

- Invited participation in the remaining two workshops
- Participation in the open information and discussions sessions in the process of being scheduled
- By making their views known to their Heads of School or Centre, and
- By using the online form that accompanies this Paper.
Primary and Secondary Information Sources

The material set out in this document references two primary sources of information, being:

- The Record of Proceedings from Workshop 1
- The Record of Proceedings from Workshop 2, and
- The manuscript notes produced during Workshop 3, as interpreted by the author.

Where appropriate, data and information have also been drawn from two further sources, being:

- The papers collected as background reading for participants at Workshops 1, 2 and 3, and
- The author’s own research and sources.

Sources are duly acknowledged via footnotes to the body of the text.

Confidentiality

As indicated in the opening to the first and second Record of Workshop proceedings, the strategy development process the Faculty is engaged in is an open, consultative and collaborative one. Documents produced will have as wide a circulation as possible within the Faculty so that they can be commented upon and enriched by their readers. That being said, the documents produced, this one included, should be treated with care and consideration, as should be the information they contain and the views they offer.

At this stage in the process, the material is not intended for distribution or comment outside the Faculty, unless it is at the express direction of the Acting Dean, Professor Robyn Ward AM. Questions surrounding the use of the material in this and subsequent iterations of the document should be referred to the Dean’s office.
Part 1:

Being a revisitation and reaffirmation of key statements arising from Workshop 1 deliberations, insofar as they provide necessary context and reference marks for the discussion of the Faculty’s decadal intentions in respect of its education-specific aspirations and endeavours.

The statements originally appeared under four headings, which we have preserved in this fresh edition. The headings were:

A Precious Collection of Assets
Concerns, Doubts, Questions
Different Game, Different Rules
Cornerstone Statements
A Precious Collection of Assets

Size

The Faculty is an impressive body by most measures: staff, students, partners, research outputs, reach within the community – all, in total, give it an anchored presence, a weight and critical mass that translates to a significant advantage when it comes to capturing economies of scale, fostering diversification and informed risk-taking on a scale denied to many other similar – and often competing - institutions.

Staff

The Faculty is rich in intellects, at work in teaching, research and clinical care. The asset they constitute is deep and diverse, made up as it is of long-standing and new staff that reflect the extensive diversity of health expertise strands, from acute medicine to public health, and across regulated, non-regulated, managerial and administrative professions. The depth and diversity of the Faculty’s staff resources have given it resilience in the face of accelerating change.
Students

The Faculty has ‘pulling power’. Over the years it has consistently attracted, taught and graduated a substantial body of students, drawn from domestic and international markets. This ‘pulling power’ has also meant the ability to choose the better academic performers at entry. By and large and considered in their entirety, these attributes continue to amount to a distinct advantage for Faculty and University alike, in the form of a diverse and gifted student body of high academic achievers.

Associations

By ‘associations’ we understand the spectrum of relationships, from collaborations to full partnerships, which the Faculty has developed and enjoys: with teaching and research institutions (nationally and internationally), with industry, with hospitals, with health-services providers and with the wider State health system, gathered into a network of considerable breadth, depth and diversity. As with the other strengths mentioned, these associations constitute another valuable asset worthy of protection, care and development.

Infrastructure

As a substantial body of resources engaged in extensive research, teaching and clinical care activity, the Faculty has developed over time a substantial operating infrastructure of buildings, facilities (many of them highly specialised in design, capability and equipment), systems and practices, with their supporting data, communication and technology networks. The asset thus created, multi-faceted, weighty, deep-reaching, has substantial value. Yet that value may not be recognised at its true worth, given the dispersal and underlying, embedded nature of its constituent parts.
Reputation

History matters. When successes accumulate over decades, they accrue and form into an institutional story that eventually translates to a reputation – a ‘brand’, to use the commercial term. Reputation, in turn, attracts further interest that morphs into commitments: to undergraduate and post-graduate study; to involvement and participation in research; to investment and funding; to on-going association (alumni) and contribution (philanthropy); and to the shaping of multi-form cross-sector associations. Prestigious, successful institutions, like the Faculty, have strong attractive and influential power. The challenge lies of course in the recognition and in the use of that power to beneficial ends.
Concerns, Doubts, Questions

Purpose and its Clarity

We, the Faculty, lack a sense of clear purpose – an articulated, unifying, shared sense of direction by which to steer our course as a body (making choices, taking decisions, choosing risks). Without that reference, how shall we determine whether the Faculty’s size and resources are appropriate to its ends or not? And how shall we know whether this or that strategic priority or course of action should win out over others? Absent that sense of common purpose, unity falters; the well-integrated core gives way to loosely-connected units; energy dissipates between these units; and the greater opportunity, the opportunity that the whole alone has the power to command, slips away.
Identity, Purpose, Differentiation

Extending the above: in an environment of inevitably limited resources, conscious, clear choices as to the path (or paths) to be taken enable the concentration of resources and effort on those things that matter. ‘All things to all people’ amounts to a failure to exercise choice. It is also a recipe for waste and progressive weakening as organisational tiredness and fatigue set in. The future of a strong Faculty lies in the making of informed choices about two classes of things: those that it will set store by, value, seek out and pursue above others; and, just as importantly, those that it will not. Its chosen paths will become what identifies it and what distinguishes it from others who strive in the same arenas – its ‘colours’, so to speak.

Status Differences, Status Equality

The Faculty is greater than its medical dimension and substantially greater than its MD program alone, established though it may be. Yet medicine can still prove the habitual defining prism though which the Faculty’s world is ordered, and this at the expense of other disciplines closely related to it or to the wider field of health in its many dimensions, from disease to human well-being, from individual-centric to community-centric, and from clinical care and practice development to policy design. Inequalities of status between disciplines make for dysfunction, frustration and resentment. They must be resolved via educational, operational, organisational and behavioural adjustments if the Faculty is to reap the benefits of the discipline diversity present in its midst and exploit it for the strength that it constitutes.
Reactivity, Proactivity, Leadership

Where a sense of purpose and unity of direction lack, decisions tend to the reactive rather than the proactive. Ultimately, the strategic risk is one of ‘me-tooism’ for those caught in that space, as they turn now this way and now that, in order to match the moves of nimbler, more alert, purposeful and determined competitors. This is not the way of the Faculty. Through the revisitation and affirmation of its purpose and intended future, it will give itself the base from which to lead and exercise effective and productive creativity.

Partnerships: Laissez-faire or active management?

The Faculty’s teaching and research activities depend altogether on productive relationships with a suite of partners and associates at work in the field of health. The Faculty has long enjoyed the immense benefit that a uniquely rich web of professional relationships offers. Equally, there is no doubt that the organisation’s future, and its future successes, depend on the protection, enhancement and extension of these fundamental relationships, as well as on the addition of new ones. But are these relationships properly nurtured and attended to? Are they managed attentively enough? Is their value recognised and does the Faculty’s actions speak to that recognition? The concern is that, as a matter of fact and practice, the care paid to them is uneven, to the point where, in some instances, the relations are better characterised as collaborations (weaker) rather than genuine partnerships (stronger). Where relationships are concerned, attitudes and management practices should be raised to a clearly higher standard – a standard whereby the Faculty is seen as an attractive, even indispensable, partner, rather than one among other collaborative options.
Research: Fitness for Purpose

The Faculty takes justifiable pride in the successes its research efforts have produced in decades past, in the results present endeavours are delivering and in the promise current projects hold. However, the continuing investment of resources in research is now taking place in a substantially different environment to the one in which past successes were garnered. Changing rules, growing demands on the public purse, sharper competition over available funds and evolving circumstances necessitate the adjustment – and greater cohesiveness – of responses, responses that in turn are expected to address meaningful problems associated with individual and community health. In that regard and without an iota of compromise to the integrity of the research effort per se, the Faculty must make sure that its approach to the conduct of research is well-directed, effectively structured and thoroughly adapted to the demands of the times – in short, that it is genuinely ‘fit-for-purpose’.

Teaching: Fitness for Purpose

When it comes to the fitness of the Faculty’s program and course offerings, the challenge that applied in the case of research is to be found here as well – perhaps even more so. Relevance to today’s needs, to undergraduate and postgraduate student cohorts with different expectations, different learning patterns and different career and practice ambitions is paramount. This is not about forsaking scientific, professional or technical expertise. To the contrary, the depth of that expertise matters more than ever. Rather, it is how that expertise is taught, developed, acquired and applied that is called into question. The Faculty’s future offering must be about more than pathways to medicine: it must be about pathways into health futures, medicine among them. Tailoring the Faculty’s offering to have it respond to new demands – indeed, influence that demand – entails profound change: in program offerings, in courses and curricula, and in the cross-disciplinary arrangements involved. The task is substantial; but so too will be the reward for a successful transition or, for that matter, the strategic and operational penalties for not embracing it.
Mustering ‘Infrastructure’ Resources to Best Effect

We noted earlier the advantage that the Faculty’s extensive infrastructure confers upon it. But that advantage is difficult to capitalise upon under present arrangements and conditions. The data and systems (and, by extension, the resulting knowledge) necessary for that capitalisation to occur are too often deficient. Disparate (and at times opaque) systems, incomplete data and limited staff experience mean that sense-making, informed decision-making and risk management are often arduous, time-consuming and frequently problematic tasks. This state of affairs has two significant consequences: it denies much of the opportunity for optimisation of the use made of assets; and it proves the source of considerable inefficiency. Put simply: the value derived from many present-day systems and operational practices is unequal to the amount of effort invested in seeking it. In an environment of constrained resources that is likely to become even more so, this is neither a desirable nor a sustainable state of affairs. Extensive, productive and well-integrated change is at the centre of the Faculty’s strategic agenda.
Different Game
Different Rules

Challenges to the Established Order

Universities have long-enjoyed positions of authority as ‘dispensers’ of knowledge and ‘certifiers’ of the competence achieved by those who enrol in its programs. That privileged position, however, is coming under threat: different bodies have entered the knowledge supply and competence certification arenas, a reflection of technological advances and, more importantly, of a deep shift in the approach to study, to the earning of degrees and to career-management patterns. In an age of increasingly self-curated education and multiple offerings, customer-students can combine options from different sources to suit their individual circumstances and aspirations. They are no longer bound to a single ‘department-store’ university. They are free-shoppers. How will the Faculty recognise such profoundly altered market conditions and respond to them?
Different Students

The commercial language of the lines above is no error. Student expectations have altered, and behaviours along with them. Higher-education and the degrees conferred must, more than ever, translate to value. There is a transactional spirit to the relationship between the student and the University – an expectation of return for the monies paid.

When the market offers an increasing array of products and makes the exercise of choice reality; when prospective ‘purchasers’ of services exercise their ability to make comparative assessments between provider offerings; and when social networks provide platforms for the instant expression of opinions, it is easy to see why behaviours would change; why the operation of education would take on a business (even commercial) tone; and why it would find itself irrevocably altered in the process, from substance and form to the construct of its delivery infrastructure.

One may agree or disagree as to the ultimate desirability of the change involved, but not about its existence. The only question, the only ‘thing’ that matters ultimately, is how an organisation (like the Faculty) chooses to respond.

Different Notions of One’s Working Life

Another strand of the same reflection goes to the different working-life patterns that are emerging: patterns whereby a life-long job or career may grow increasingly far from the norm; whereby one person has multiple jobs and careers in a working lifetime; whereby ‘jobs’ are extended in definition and content, or combined in unexpected and specifically individual ways to suit inclination, circumstance or an evolving sense of purpose; whereby the pattern of work is discontinuous, shifting from full- to part-time, casual to contract, employee to self-employed; whereby a deal of attention is paid to the achievement of a better balance between work and (personal) life; and whereby, generally speaking, learning – the updating or diversification of one’s knowledge and skills – is a life-long affair.

Jointly or severally, none of the above reconcile satisfactorily to the Faculty’s traditionally fixed offerings, in both substance and form. How will the Faculty adjust those offerings to make them compelling? How will it do so without
impairment of either depth or quality? And how will it affirm itself as a serious contender in post-degree education in health and medicine?

**Constrained Government Resources**

As the government’s taxation-based, revenue-generation model struggles to grow in any meaningful way, a relatively static pool of public funds must satisfy rising levels of demand for services and infrastructure, both of them to be had only at increasing cost. When, at best, the revenue pie can barely maintain its size and then the contest for a share of it can only grow more intense while the portions go on reducing. In such circumstances, it is inevitable that government will look to the returns (societal, economic or other) that the allocation of its limited resources generates. It will have a keen eye to the productivity (measured in outcomes) its investments produce, be those investments in teaching, research or clinical care. Put simply: less and less attention will go to the existence of a process (like education); more and more of it will be directed instead to the quality of the outcomes of that process. What implications will this have for the Faculty’s degree offerings on the one hand and its research endeavours on the other?

**Accountability and the Notion of Market Permission**

The trend to accountability suggested by the shifts noted above in regard to the ‘customer-student’ and government, speaks to the wider reach of the accountability concept in societal terms – i.e. the real, albeit often muted, ‘expectation’ that public monies directed to research will, in an open time frame, bring about improvements in our quality of life and, in the case of health and medicine, in improvements to our longevity, our physical well-being and our ability to combat disease. Society grants ‘market permission’ to those activities which it ultimately sees as beneficial to it. At its most fundamental, it is the unspoken contract that funded research, and the education of health and medical personnel, operate under. The Faculty cannot fail that contract. More than that, it must do it with unquestionable honour.
Evolving Needs in Society-at-Large

As changes work their influence among students, government and other constituencies, a significant evolution is also underway in the community at large and the shape that health care will take within it in years to come: the long-established one-to-one, patient-to-practitioner focus, along with its frequent hospital-centric (and patient-bed) locus, are shifting as the frame of reference widens and growing importance comes to attach to community health, disease prevention, the treatment and management of endemic diseases, and the self-management of individual health and illness within in a developed, often virtual or widely-distributed, multi-party, health system.

Data, Technology and the Future of Care

Technology is rapidly altering – and will alter further still - the face of patient care. Remote diagnostics, monitoring and treatment capability as we know them now will be profoundly affected and widely extended by developments such as those that are taking place in remote sensing; in data transmission, visualisation and management; and in computing power. Further enhanced by artificial intelligence, these elements will alter the act and meaning of consulting as they will medical and para-medical procedures. Boundaries and interactions between humans and machines will be re-set in reach and depth. We will see the consequential birth of vastly different health and case management systems. Inevitably, the curriculum and training of those who will manage and function in this re-shaped environment will demand substantial and, likely as not, frequent adjustment.

Blurring, Porous Boundaries

In parallel with the transformation of the practice of care, we will see another evolution. Already well underway, it is the blurring of disciplinary domains that were previously strictly defined and interpreted – domains such as those of medicine on the one hand and nursing, physiotherapy, pharmacy, to name only these. These bodies of knowledge and practice have already begun extending their traditional remit into germane areas, as a wholistic view of care takes hold. The extension of knowledge boundaries will mean change in roles and responsibilities, and in the manner in which those responsibilities are discharged.
The change will reach into structures and operations, and eventually into certification and regulation. To be clear: the fundamental knowledge and competency domains will remain, as will the differences between them. However, the defining edges of these knowledge domains will grow less sharp and more porous; it will touch – and sometimes challenge – role boundaries between professionals working in health (medical and non-medical, regulated and non-regulated). The altered notion of care and the rising importance of teamwork will re-enforce that trend and usher in new practices.

**Partner Identity, Partner Relations, Partner Engagement**

*In the widened reference framework that health and care will occupy, the Faculty’s engagement with industry is likely to see substantial transformation.* For one thing, the sectors from which its partners are drawn are likely to grow in diversity as collaborations expand and extend into complex environments. Future collaborators may well be drawn from community groups with an interest in health, the manufacturers of technology as well as data and information behemoths, alongside the Faculty’s more traditional associations with health service providers, government agencies and medical research institutions. Where research presses at the boundary of the interaction between humans and science, we are equally likely to see philosophers, ethicists, psychologists, computer scientists, behavioural scientists and social scientists take an active role alongside ‘pure’ medical, biomedical and health disciplines in communities of interest centred on the delivery of projects. Not unsurprisingly given this diversity of associations, the models and forms of collaboration are also likely to evolve in order to have them satisfy the requirements of the different parties.

**In Closing...**

*There is no doubting either the extent of the changes in progress or the complexity of their interaction. Denying either (or worse, both) would be folly.*

It would also put at risk the future of the Faculty as a relevant and authoritative entity in the teaching and research environments of health and medicine. We begin exploring what preparing for those changes, accommodating them and capitalising on them will mean for the Faculty in the coming sections. That
exploration and preparation will then progress through the further discussions planned as part of the organisation’s strategy development process.
The Faculty Response: Cornerstone Statements (Revised and Updated)

On the Material in this Section

This section of the document presents a number of anchor statements about the Faculty’s fundamental intentions over the decade ahead.

By definition and as ‘first-pass’ statements, they are broad and aspirational in nature. They should not be criticised, let alone dismissed, for displaying such attributes. Aspirations are a legitimate and essential part of the construction of plans. They are the cornerstones of those plans, their animating spirit.

As steps in the Faculty’s strategy development process, the statements will have consequences and implications. They will be interpreted and distilled into specific objectives and measures in subsequent workshops dedicated to teaching, to research and to the organisational support apparatus required by those endeavours. Objectives and measures will have to serve them.
The Opening Premise

In defining the Faculty’s intended future, we begin from the premise that, in the face of the societal, cultural, economic, financial, business, clinical, scientific, technological and organisational change about and within the Faculty, a plan that would have the protection of the status quo as its fundamental tenet is altogether unacceptable.

Resolution 1

The Faculty will seize the opportunity before it and respond to the challenges it presents in an intelligent, well-integrated, productive, collaborative and sustainable manner.

The Greater Cause

Human health is an invaluable asset, whether to the individual whose lot it mitigates, protects, restores and improves, or to the wider community who profits by it through a better, surer, quality of life.

Yet health, individual and societal, is as fragile an asset as it is an invaluable one: unequally distributed, it is continuously exposed to unpredictable combinations of events that will threaten it, attack it, and compromise it, sometimes fatally.

Resolution 2

Through its activities in teaching and research and by drawing on the wealth of resources available to it, the Faculty will strive to improve, in material and lasting ways, the health and well-being of our society.
Three Specific Objectives
in the Service of the Faculty’s Greater Cause

The Faculty will serve its greater cause through three chief strands of effort:

Education

Resolution 3

The Faculty’s teaching effort will produce graduates who, on completion of their studies, will be ready to begin contributing to the improvement of health and well-being in the population of their choice – local, regional or international.

Deeply competent in their elected disciplines, these graduates will be equipped with the mix of cultural, professional and personal skills that will make them into leaders, whatever the level of their participation in their work environment.

Research

Resolution 4

Multi-disciplinary by design and multi-modal in approach, the Faculty’s research effort will make a noticeable and recognised contribution to the resolution of complex and pressing societal issues ranging from the general betterment of community health and well-being, to advances in health-directed, fundamental and translational science.

Unrestricted in outlook, characterised by innovation and outstandingly effective in its applications, the Faculty’s research effort will stand out as an exemplar and model of well-integrated and particularly productive intellectual effort.
Global Health

**Resolution 5**

The Faculty will become known for its pioneering work in the design of the health delivery and management systems of the future – systems that will recognise, embody and exploit the cultural, societal and technology-driven trends at work in our environments, and shape the role of health professionals in the vastly different circumstances these forces will generate.

In that capacity, the Faculty will prove a leader in the creation of innovative systems and models; a significant influence in the development of the associated health policy agendas; and the provider *par excellence* of milestone pilots and models in advanced health delivery and management systems.

**Enabling the Fulfilment of the Faculty’s Objectives:**

**Shaping a ‘Fit-for-Purpose’ Cultural and Organisational Base**

The Faculty recognises the need for substantial and extensive change to the cultural and organisational forms of the past, if it is to reach its goals. Here too, change is not an option but a necessity – and, in some instances, a pressing one. One of the hallmarks of the change in question stands out with particular clarity.

**Resolution 6**

In the pursuit of its decadal aspirations, the Faculty will come to act as a collection of equally-valued disciplines. It will leave behind cultural and organisational inequalities that hinder its progress – inequalities that can foster ‘class distinctions’ between colleagues who, at heart, share the same fundamental intent and answer to the same cause.
The Faculty will structure its resources, its offerings, its day-to-day work environment and its rewards with that ‘equal value’ principle in mind. And it will make this inclusive, multi-disciplinary, team-oriented principle into the identifiable characteristic, and notable differentiator, of both its teaching and research endeavours.

Enabling the Fulfilment of the Faculty’s Objectives: A Far More Desirable Partner

In a competitive environment, there is a world of difference between an organisation seen as an option among possible collaborators, and a position where one is the most desirable and sought-after partner. The latter is the Faculty’s avowed aim, which we return to in the section on research.

Resolution 7

The Faculty recognises that, extensive as its resources may be, the pursuit and the attainment of its objectives demands active collaborations between itself and its partners, in mutually beneficial and responsive arrangements. As part of that recognition, the Faculty understands that it must ‘lift its collaborative game’.

Interpreting the Aspiration

In the remaining pages of this document, we begin the task of translating the Faculty’s ambitions into likely courses of action within its teaching and research environments.

The material plays the same role as marker pegs on a construction site: they define the boundaries of the structures to be erected and, in so doing, suggest their intended footprint and shape. These structures have begun to emerge as part of the reflection on education (presented in this Paper). They will be
extended further through the discussions that are to take place as part of the workshop on research (21-22 September 2017).
Part 2: Education in the Future Tense (Second, Expanded Iteration)

Being the record of the positions reached as a result of Workshops 1 and 2 discussions, regarding the Faculty’s decadal intentions in respect of education, teaching and learning.

The material will be subject to review, emendations and enhancements as the strategic reflection continues to unfold.
Links, Alignment

Linking Two Sequential Reflections on the Subject of Teaching and Learning (Workshop 1 and Workshop 2)

The education-directed reflection set out in this Paper does not proceed ab nihilo. Many of its foundations were laid in discussions that took place during Workshop 1 and, in particular, the conversation that had teaching and learning as its focus.

The substance (and some of the phrasing) of the argument framed in that earlier document now appears in this record in the form of key statements inserted at appropriate points in the material. By marrying the thinking strands that emerged in the first workshop to those that found expression in the second on the same subject, we now have as integrated an insight as exists at this juncture into the Faculty’s emerging decadal education strategy.

The various aspects of that insight are presented individually, i.e. topic by topic. For each topic, we have provided a context and, where possible and appropriate, a statement of anticipated direction, characterised as a resolution.

Considered in their entirety, the resolutions describe the Faculty’s proposed strategy in matters of education. In many instances, they also delineate the bodies of work that will require execution in pursuit of the implementation and ultimate fulfilment of that strategy.
Alignment

The positions taken in this paper in regard to the Faculty’s intended approach to its education endeavour spring from discussions held during the first two workshops in the series of four that make up the Faculty’s full strategic reflection.

Importantly, the positions also take account of the University’s broader strategy, of the directions reflected in its Student Strategy 2016-2020 White Paper, and of the results of recent student satisfaction surveys.

As various quotations from these documents will show, the Faculty’s intentions, as expressed in this Paper, are in complete alignment with the University’s strategies, while student opinions – and the more critical of them in particular – have informed many of the proposed changes.
The Faculty’s Education Agenda: Cornerstone Statements

The Faculty of Medicine as a Body: A Commitment and a Definition

In times past (and a not-too-distant past at that), the disciplines and the groups in which they are clustered have often operated in an environment in which collaborative approaches, at least as a matter of day-to-day practice, have not proven a distinguishing feature of the organisational arrangements in place. Instead, unresolved divergences in views and approaches, alongside inequities in treatment (real and perceived), have been the source of energy-consuming tensions and occasional discord.

Whether it is as a matter of philosophical principle, recognition of the ascendance of interdisciplinarity in education and research or operational pragmatism (or all three), and in the face of a wide-ranging change agenda inspired by the current strategic reflection, the Faculty has determined that it must come to function as a unified body (and do so as swiftly as possible), in order to secure the benefits that derive from life under a common purpose, shared values and a well-integrated and ‘oiled’ modus operandi.
In taking that position, the Faculty is not bent on the adoption of a ‘one-size-fits-all’ in its education endeavours in particular (for it tends to be in education rather than research that the tensions manifest). It is intent, however, on identifying what should be unifying commonalities among its various parts, and what differences should be recognised between them.

With that in mind, references to ‘the Faculty’ are to be interpreted as inclusive of the biomedical, medical and public health disciplines (enumerated in alphabetical order) that are gathered under its organisational umbrella.

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**Resolution 8**

The Faculty will, in future:

- Operate as a body rather than a loosely-held collection of disciplines. Wherever they exist, commonalities in philosophies, programs, courses, pedagogies and operations will be captured for the benefits to be had from them. Where legitimate differences exist, they will be recognised for their validity and contribution

- Operate in a manner that accords their rightful place to the disciplines gathered under its roof, and value them equally as a matter of principle and practice

- As a matter of organisational priority and in a systemic perspective, review and adjust its management models, operating practices, supporting systems and related arrangements, in order to have them reflect the terms and spirit of the objectives above.

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‘Teaching’ or ‘Education’?
The Faculty’s Position

‘Teaching’ and ‘education’ are related but distinct concepts, with the second gathering the first in its ambit. The Faculty’s task is to *educate* the students enrolled in its programs, rather than simply ‘teach’ them a specified body of knowledge and skills. Education encompasses teaching, as it does the fulfilment of
other related developmental responsibilities such as guidance, mentoring and the provision of forms of pastoral care.

Resolution 9

The Faculty's responsibility is to the education of the students enrolled in its programs or courses. That responsibility includes, but is not limited to, teaching. It is, importantly, a shared, Faculty-wide responsibility and commitment, into which all will participate.

Education and Research in the Faculty’s Value System

As stated earlier, there is often much pride in declaring oneself a ‘research-intensive’ or ‘research-led’ institution. Statements like these convey an implicit value judgement, a silent jostling and tussle in which the teaching mandate somehow comes second.

This does not reflect the Faculty’s position. Rather, the Faculty is firm in its commitment that, within is its walls, education will be valued as one of the two endeavours that lie at the heart of its mission and responsibilities, and as the equal and essential partner to its research endeavours.

Resolution 10

The Faculty puts as high a value on the provision of education as it does on the conduct of research. Education and research are its dual, and equal, responsibilities. They will be treated as such in the allocation of its energies and resources. This will result in changes to the manner in which the Faculty’s teaching capability is maintained, extended and nurtured.

(See detailed comments on this topic, in a later section of the document)
The Purpose of the Education the Faculty Provides

The Faculty educates students in order to have them develop and reach their potential: intellectual, professional and personal. In so doing, it prepares those who have leadership talent to exercise it. Yet its duty is to all who are admitted to its courses and programs.

The Faculty’s education process has three objectives, which we articulate below. The quotations cited after each objective are drawn from the University’s Student Strategy 2016-2020 White Paper and its companion publication, Changing How Higher Education Is Imagined. They demonstrate the close kinship between the Faculty and the University’s goals. The objectives are:

- **The fulfilment of individual potential**, whatever its form or make-up among the health-related disciplines gathered under the Faculty’s roof

  ‘Foremost among our priorities is graduates having an advanced and competitive ability to acquire and create work and new opportunities over a lifetime for themselves and for others.’

  University of Queensland, Student Strategy 2016-2020 White Paper

- **The development of knowledge and skills** to verified mastery levels – levels that speak to superior competence and genuine readiness for practice. The knowledge and skills involved will be of two broad types: scientific and technical on the one hand, and personal on the other.1

  ‘Universities – long tasked with developing independent and critical thinkers – must now also ensure they develop enterprising graduates with the knowledge, skills and networks to build meaningful and agile careers... Excellent disciplinary knowledge is, and will remain, imperative.’

  University of Queensland, Changing how Higher Education is Imagined

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1 Among these we include the following *inter alia*: an ability to empathise and communicate clearly and readily; an ability to work in multidisciplinary teams; confidence in leading peers; wisdom and courage in making decisions; professional curiosity; and openness of outlook.
● **The provision of an experience** that awakens students’ thirst for learning and intellectual exploration, and one that, in the process, equips them for life and work in swiftly evolving circumstances and situations.

'We understand our students are looking for a dynamic learning experience – one that can offer a balance of support, structure and flexibility with opportunities to build the knowledge and know-how to compete in today’s rapidly evolving workplace.'

University of Queensland,
Changing how Higher Education is imagined

This combination of knowledge, skills and attributes will be the hallmark, the unmistakable stamp, of the Faculty’s education and training process. Furthermore, in the pursuit of these goals, the Faculty will have a care for the well-being of students as individuals – individuals who opt to live in its midst for years and, for many among them, during one of the pre-eminently formative period of their lives.

In striving for these goals and in its day-to-day operations, the Faculty will keep well in mind that its task is not one of knowledge brokering, any more than it is that of an accrediting agency for ever-larger cohorts of fee-generating ‘customers’ to be put through processes like so many units in a production chain. While it will continue to be aware of the commercial imperatives that attach to the business of education, it will not let these same necessities pervert the wider purpose to be served when welcoming students to its programs and courses.
Resolution 11

The Faculty undertakes the education of the students it admits to its programs and courses with three objectives in mind: the development and attainment of the students’ potential; their verified mastery of the knowledge and skills associated with their chosen program of study – this to a level compatible with their putting knowledge and skills to work readily once they have completed their program; and, more widely, the acquisition of the intellectual habits that will equip them to adapt to rapidly-evolving job and work structures.²

Education for Whom?
For the World: Balancing the Faculty’s Domestic and International Student Intakes

The Faculty’s outlook is global. Its subject matter is global, concerned as it is with human health and well-being. Its education program and its research efforts have no thought of borders.

The Faculty will maintain that outlook and continue to admit international students, who contribute much to the rich diversity of its student body. It already welcomes a significant number of international students (i.e. on-shore, as well as its Ochsner cohort), who enrol in its programs alongside the Commonwealth-supported Australian contingent.

Student fees are essential to the financial health of the University and, by extension, to that of the Faculty in respect of both its education and research activities. Differences in the fee regimes applied to domestic and international students can skew admission patterns if the quest for financial benefit is allowed too great an influence in the decision-making mix.

² [Note: This affirmation will have implications for work to be undertaken in respect of programs, curricula, teaching practice, assessments and life-long learning readiness. See later comments for details]
The Faculty is well aware that Commonwealth funding arrangements limit the government’s contribution to the higher education of domestic students – a contribution that the Birmingham reforms, should they become law, will depress further. In contrast, fees set for international students are materially higher than those paid by their Australian peers. Predictably perhaps under such a two-tiered financing regime, the recruitment of international students can easily become a priority, however justified or disguised, in order for the institution to capture the financial advantage that attaches to such enrolments.

Given, moreover, that all institutions have capacity-based limits as to the numbers of students they can accommodate, the material difference in revenue-per-head between the two categories of enrolments can easily produce significant imbalances between the size of the domestic and international cohorts, in those instances where revenue acquisition edges out philosophical, ethical and strategic considerations. While clearly cognisant of the financial realities at work in its student attraction effort, the Faculty is keen that its student mix should be the expression of considered strategy and policy; and, conversely, that it should not be the product of laissez-faire, or worse still, of parochialism and assumptions of debatable integrity.

Resolution 12

The Faculty will ensure, as a matter of philosophy, policy and strategy, that:

- Its student body reflects a healthy mix of domestic and international students, at both undergraduate and graduate levels
- The student learning experiences recognise and capitalise upon the domestic-international diversity present in the student body, in matters of both education and research.

The Faculty, moreover, will settle upon and articulate the rationale and set of guidelines by which it will determine the optimal mix of domestic and international students represented in its cohorts.
‘A mix of genders, cultures, disciplines, pedagogies learning contexts and student cohorts is critical to the development of creative undergraduates who become responsible citizens.’

University of Queensland, Student Strategy 2016–2020 White Paper

Education for Whom? The Deliberate Construction of Diversity

Many students apply to study with the Faculty, but not all who do gain a place in its programs and courses. For the foreseeable future – and certainly for the decade covered by this reflection, we expect that demand for the Faculty’s education offerings will remain greater than its ability to service it. The necessity of culling admission requests in accordance with a fair, equitable and transparent system will therefore remain.

Moreover, within that system, the selection of applicants will occur according to criteria that reflect the Faculty’s intent and experience when it comes to the make-up of the cohorts it admits and the likely success of the members of that cohort in pursuing their studies to a successful conclusion.

If it must be said: for the sake of all involved in the undertaking, care is to be taken within that system that those who are invited to study in the Faculty are reasonably likely, by virtue of their intellect, application and personal attributes, to reach the standards of competence required in their chosen program – with account taken of the knowledge-bridging and supplementation options available to them.

These notions and imperatives are known to the Faculty, which has undertaken work to review its admission process and better match student aspiration to student ability and capability. What the present reflection contributes to this work, however, is the formulation of the set of imperatives that, put to work in the system, will shape an heterogeneous student body, where ‘heterogeneity’ is taken to describe a body of students that displays the following six distinguishing attributes:
- **Gender balance**, i.e. a group that avoids any significant imbalances in its representation of the genders involved

- **Socio-economic diversity**, i.e. a student body whose members are drawn from all socio-economic tiers to mirror the composition of society at large

- **Demographic or experience diversity**, i.e. a student body that, in its make-up, reflects (a) the different educational needs of participants at different times in their lives and (b) the Faculty’s ability to offer them education opportunities through different points of entry to their chosen programs

- **Cultural diversity**, i.e. a student body in which different cultures and ethnicities are represented, as befits a Faculty attracting a mix of domestic and international students

- **Indigenous inclusivity**, i.e. a student body in which persons of indigenous descent readily find and hold their place

- **Capability cognisant**, where ‘capability cognisance’ manifests in two key ways:
  - In a system that has students gain their place in the Faculty’s programs and courses not only because of a demonstrated academic achievement coupled with a level of financial ease, but through the recognition of intellectual potential and relevant personal attributes; and
  - In a system that sees students supported, encouraged and advised towards the programs and courses best suited to their capacity, abilities and aptitudes – particularly in those circumstances where students’ choices are ill-matched with their capability.
Resolution 12

The Faculty, will:

- Build, consciously and actively, a student body whose attributes match five fundamentals supportive of our mission: gender balance; socio-economic diversity; demographic-experiential diversity; cultural and ethnic diversity; indigenous inclusivity; and capability recognition.

- Ensure that these fundamentals find their place in the design of our admission system, in the technologies we use to drive and support it, and in the experience of those who interact with it.

- Ensure that these same fundamentals are recognised in, and influence, the design of our programs and courses, pedagogies and the resulting learning experience.

Defining Change, Implementing Change: What Roadmap?

The desirability of change (and, in some instances, its necessity) in order to equip the Faculty for the decade ahead is clear. Some of the changes we canvassed are meant to respond to evolving external circumstances (like student demographics and learning modes), while others target internal pressure points (like study pathways, admissions or assessments).

Change has a spectrum of depth: from light (such as in an adjustment, an amelioration or an enhancement) to the more consequential (as in a refocusing or retargeting) and deeper still, to a rethink and recasting of fundamentals. At this point in the reasoning, we address the question of change in all its forms, irrespective of their extent or depth.
Whatever the change drivers and however deep their reach, discussions during the first workshop called for a number of them to be made to the existing order of things. A similar message came through just as loudly and as clearly during the second workshop, with its focus on things educational – in regard to matters that ranged from curricula to study pathways; from course flexibility to study personalisation; from learning modes to the recognition of credits for extra-curricular endeavours; and from admissions to assessments, as part of the Faculty modus operandi. The list is indicative; it is not exhaustive.

Let us accept that the calls for change are warranted. There is no reason to doubt either their desirability in some instances, or their necessity in others. The daunting question is how to address them. In that respect, the approach can be piecemeal or it can be integrated.

The second of the two options is the only sensible one: the parts operate in a dynamic system of interdependent elements; changes made to one will have upstream and downstream implications. What’s more, these same parts will, jointly and severally, affect the quality of staff and student experience, both of which we are concerned to improve.

The change agenda needs a unifying rationale that will give it logical and consequential integrity. The rationale emerged in the course of the second workshop and can now be summarised (see below) and illustrated (see schematic shown overleaf). In essence:

- **[1] Program ‘Mission’**
  The chain of logic begins with the intended end-point: the future-ready, contribution-ready and job-ready graduate that we expect the Faculty’s education programs and courses to produce. The Faculty must be able to articulate this end-point, as this effectively constitutes the Faculty’s promise to its enrolling students.

- **[2] Expected Results and Outcomes**
  In each program or course, students at that end-point will have acquired – and be expected to demonstrate – specified knowledge and know-how levels, as well as certain skills. The Faculty must define, for each program, what the abilities, capabilities and skills of the graduating student are.
• [3] Targeted Admissions
Those whom the Faculty admits to its programs and courses should have the best chance of meeting with success in their studies. They should also contribute, by virtue of their capabilities and aptitudes, to the development of the Faculty’s preferred cohort profile (see earlier comments on the concerted effort to build growing diversity into the student cohort).

• [4] Explicit Contract
Student success (and teaching effectiveness) depend to a material degree on the students’ behaviours and attitudes towards their responsibilities when it comes to learning. In the reciprocal venture that is the transmission of learning, the Faculty has its own responsibilities. Both parties moreover, have expectations. Responsibilities and expectations should be made clear.

• [5] Tailored Curricula
Curricula must be fit for purpose, i.e. they should be constructed and tailored with the intended program ‘mission’ and its expected outcomes in mind. This is not necessarily the case across all of the Faculty’s curricula. They should be revisited, assessed and adjusted as required. Room must be had as well for the inclusion of non-scientific or technical knowledge and skills that is deemed important to job readiness.

• [6] Reliable Assessments
Assessments must test the actual competence achieved, in full alignment with the specified outcomes where knowledge and skills acquisition is concerned. That alignment must be tested, as must the assessment process itself, along with its product – i.e. the marks obtained. Objectivity, reliability, accuracy, consistency, repeatability, transparency and, last but not least, efficiency are all critical attributes of high-quality assessments.

Together, these six elements are part of a dynamic system. Within that system, they form an interdependent chain that should be used to guide the examination of necessary change and the development of enhancements to each of its parts.
Diagram 1 - Schematic Representation of Interconnecting Elements in the Faculty’s Education Endeavour

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Raison d’être, Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Mission</td>
<td>Articulation of the overarching goals that speak to the Faculty’s ambitions as to its graduates and its own reputation as a centre of learning</td>
<td>Anchor point for the development of program-specific contributions, in line with the Faculty’s overarching ambition</td>
</tr>
<tr>
<td>Program-Specific Competencies</td>
<td>Definition of the particular competencies (knowledge, skills) that students must demonstrate to the specified level in order to graduate</td>
<td>Defined program outcomes concerning expected, ‘excellence-inspired’ knowledge and skill mastery levels</td>
</tr>
<tr>
<td>Targeted Admissions</td>
<td>Enhancement of the admissions system to have it work towards the shaping of a student body aligned with the Faculty’s strategic intent</td>
<td>Higher likelihood of success of enrolled students. Lower attrition rate. Easier teaching. Shorter tails. Higher morale.</td>
</tr>
<tr>
<td>Explicit Contract</td>
<td>Articulation of staff and student responsibilities and expectations, when undertaking a Faculty program or course</td>
<td>Success-supportive behaviours. Platform for performance management (learning (students)); (teaching (staff))</td>
</tr>
<tr>
<td>Tailored Curricula</td>
<td>Review of curricula to ensure their alignment to program-specific knowledge and skill acquisition and mastery (substance) and up-to-date delivery practice (form)</td>
<td>Curriculum make-up explicitly tailored to the nominated competencies and appropriate delivery methods</td>
</tr>
<tr>
<td>Reliable Assessments</td>
<td>Review of current assessment methodologies and processes to ensure their fitness for purpose and technology-supported efficiency</td>
<td>Mastery and competence focused assessments of expected knowledge and skills acquisition on a continuous basis</td>
</tr>
</tbody>
</table>
Resolution 13

The Faculty recognises that adhering to the logic of the 'six-element chain' defined at Diagram 1 is fundamentally important, indeed critical, to the delivery of a well-integrated, smooth and purposeful education process, as well as to the quality of the experience that students and staff derive from it.
The Faculty’s Education Agenda: Specific Matters

Beyond the broad topics reflected in the previous section, Workshop 2 conversations also addressed a number of matters either as subsets of the broader topics or as distinct items that are of direct importance or consequence to the provision of the Faculty’s ‘brand’ of education. Discussion of these matters occupies the remaining pages of this document.

On (Mutual) Expectation-Setting

When student enter into a program or course in the Faculty, they have certain expectations: about the substance of that education, the types and standards of teaching they will receive, the guidance and resources they will be able to call upon, and the general quality of their experience.

As a Faculty, we have expectations of students too: about their application, for instance, about attendance and about attitudes and behaviours related to their performance.
If we have responsibilities, so have they. Yet we don’t articulate either expectations or responsibilities; nor do, for that matter, we do a good job of communicating them, even though the success of students and, ultimately, our own, depends on the parties recognising and acquitting themselves of their mutual responsibilities in what amounts to an unspoken, though very real, contract.

Resolution 14

The Faculty in the first instance and individual Schools and disciplines in the second, will define, articulate and communicate their understanding of the general and specific responsibilities and expectations the parties involved in the education process have of each other when it comes to studying with the Faculty (as distinct from the University).

Guidance will be offered, and performance managed, in accordance with that understanding.

On Assessments

Authentic Assessment

[The University intends to] ‘...develop a system of assessment that uses challenging and meaningful assessment tasks to engage and extend students across their programs.’

Initiative 6, Goal 1: Game-Changing graduates, Student Strategy 2016-2020

Assessments are an integral, essential part of the University and the Faculty’s education package. Assessments serve the student as much as the institution.
Throughout the program or course, they offer guidance to the students and the institution as to the students’ development, alongside an assurance as to the levels of competence attained. Ultimately, the assessment vouchsafes a student’s graduation readiness, as it does the quality of the education provided by the Faculty and the effectiveness of the pedagogies it uses in providing that education.

Current assessment methodologies, as well as the processes by which assessment are carried out, show weaknesses that deserve attention and adjustment:

- Some of the weaknesses pertain to the substance of the assessment instruments themselves (does the substance of the assessment test the outcomes and results we attach value to?)
- Others to the consistency of the testing Faculty-wide (do the assessments performed accord to certain shared fundamentals of substance and methodology across disciplines and Schools?)
- Others again to the consistency of marking, appeal process included
- Others, finally, concern the governance framework associated with the assessment process (i.e. the nature of the framework, its operation and its general transparency).

Assessments performed under the Faculty’s umbrella should answer to certain ‘non-negotiable’ fundamentals, notwithstanding the diversity of subject matters examined and their particular technical demands. The paragraphs below articulate these fundamentals:

- Assessments are to be recognised and shaped as an integral part of the Faculty’s ‘logic chain’ in matters of education, which we described earlier. They speak to its concern for quality, consistency and reliability. Assessments have neither substance nor purpose in isolation of that chain.
Assessments will be on-going throughout a course of study. During that time, care will be taken to have them serve – and used – as instruments of guidance in the personalisation of student development as well as markers of individual achievement.

Assessment marking will produce consistent outcomes and results for the same student effort and material.

Assessment ‘rules’ as to their purpose, nature, form and process (along with the obligations that attach to them for both students and Faculty) – will be articulated, communicated, explained, applied and upheld in the same manner across Faculty, Schools and disciplines.

Particular attention will be paid to the ‘legibility’ or ‘transparency’ of the rules for those who participate in the assessment process. Challenges to grades that arise from process weaknesses are to be reduced – and kept – to a minimum. Contestability will remain as a matter of principle, but it will be one with a clearly-defined remit and application.

Wherever possible and appropriate, assessment will become an electronic function rather than the paper-based, effort intensive and largely human-dependent task that it has been in the past. The transition to an electronic, AI-supported, process should occur as swiftly as possible and as a matter of priority Faculty-wide.

Resolution 15

The Faculty will adjust and modernise its present-day assessment practices and processes across all Schools and disciplines in order to see an integrated, equitable, consistent, technology-based assessment framework of demonstrable efficiency and effectiveness, introduced and established as soon as possible.
The re-casting effort is to produce a standardised, Faculty-wide system as to its fundamentals in terms of purpose, philosophy, ethos, methodological approach and operation, the latter being transferred to an AI-supported, electronic base as a matter of priority and urgency.

On the Personalisation of Education and Experience

‘Students are seeking a greater degree of control over what, when and how they study with personal advice, technologies and opportunities to support their individual needs, priorities and aspirations.’

Goal 2: Student-Centred Flexibility, Student Strategy 2016–2020

‘A major goal of our Student Strategy is to provide a flexible environment that supports and services all students, meet their learning priorities and expectations, and personalises their UQ experience.’

Goal 2, Changing How Higher Education is Imagined

The notion of students ‘curating’ their education (‘co-creators of their education’) in line with their life plans is now a firm part of the higher learning narrative and the agenda of those who provide that education. It is also a potential increasingly realised by significant advances in real-time data capture, ubiquitous connectivity and processing power in the service of data analytics.

The lineage of the notion is complex, reflecting *inter alia* the convergence of factors as diverse as the societal trend to individuation (the ‘customer of one’ mantra), its enablement via Web-based technology, the meteoric rise of social media, the widespread availability of on-line course materials, the prospect of
digital ‘badging’ for studies undertaken – right through to the casualisation of the job market and the fading attraction of careers in favour of discontinuous ‘life projects’.

**Personalisation-Motivated Flexibility: Natural Limits**

Attractive as the notion may be conceptually and embedded in the present-day narrative though it may be, its application and translation into programs exercises the mind. Personalisation demands flexibility. Flexibility, however, is not accommodated that easily when:

- A substantial, well-defined corpus of knowledge and skills must be acquired in a tight time-frame
- In that same time frame, it is also Faculty’s ambition to have students acquire skills of a professional and personal nature *in addition* to their scientific and technical ones, as per the concept of ‘T-shaped’ development – the analogy that unites depth of expertise with breadth of professional and personal workplace skills
- Professional accreditation requirements have a bearing on the make-up of the curricula involved, and
- Physical and operational constraints (geography and distance, student numbers, teaching resources and facilities) make their weight felt.

**Personalisation-Motivated Flexibility: Philosophical Limits**

The Faculty espouses the notion of personalisation-motivated flexibility. It also ascribes boundaries to it, both in regard to the factors above and as a function of two fundamental conditions:

- Personalisation cannot be allowed to occur at the expense of scientific and technical competence, which remain the touchstone of an education under the Faculty’s roof
Personalisation cannot be allowed to encourage the commoditisation of learning, i.e. a ‘pick-pack-and-pay’ mentality and its close cousin, the ‘shopping-cart’ view of education.

**Personalisation-Motivated Flexibility:**
A More Sophisticated and Robust Framework

Instead of working to a superficial and simplistic view of personalisation, better that the Faculty concentrate its efforts on a more sophisticated view of personalisation that includes the following:

- The rationalisation, from a Faculty (rather than School) perspective, of its present, complex, somewhat disjointed and relatively opaque undergraduate offerings into a considered suite of well-articulated pathways that reconcile:
  - The need for a measure of preference discovery on the part of undergraduates
  - The value that would attach to curriculum elements common to all (or many) Faculty disciplines
  - The boundaries between core knowledge and skill elements of adjusted curricula and preferential elements (‘electives’) within them
  - The injection of additional offerings (such as micro-degrees, diplomas and certificates, as well as professional development courses) the Faculty may launch in order to meet its commitment to life-long education and fill present-day gaps in its offerings

- The clear enunciation of the adjusted offerings to students

- Notwithstanding the diversity (and resulting complexity) of the management systems involved, the recognition of student as individuals operating within those systems, the tracking of their efforts and journey (via assessments, for instance) and the provision of personalised guidance and advice based on that tracking
The provision of course materials, knowledge and information in a manner that encompasses the full range of learning modes, so that students can personalise that aspect of their learning experience

The development of a meaningful and exercised ability to match student aspirations, ability, circumstances and learning preferences to particular programs, both at the start of the students’ journey and progressively, at important articulation points in their development.

Personalisation-Driven Flexibility: The Benefits of a Properly Targeted Effort

Realising those five objectives will, we believe:

- Produce considerable improvements in student experience
- Direct personalisation where it is both possible and most profitable; and, ultimately,
- Generate a distinguishing, differentiating attribute to a course of study in the Faculty and the University.

As an integrated effort, these objectives accord with the achievement of the second goal of the University’s Student Strategy, with its focus on student-centred flexibility and its subsidiary initiatives (extended on-line and campus learning; unbundled course options; program schedule alternatives; and learning analytics and e-assessment capability).

Resolution 16

The Faculty recognises the growing trend to, and expectation of, the personalisation of learning. It will respond to them in a clear, considered, pragmatic, effective and compelling manner that optimises the mix of aspiration and the practical considerations that personalisation gives rise to.
With that in mind, the Faculty will:

- Review, rationalise, adjust and update its program offerings from a Faculty rather than School perspective and in accordance with the objectives and principles it has articulated, so that the offerings can be readily navigated, communicated, explored and acted upon, all the while meeting its quality standards and educational objectives.

- Systematise its Faculty-wide ability to recognise individual students, their aspirations, preferences and circumstances.

- Use the information that systematisation enables to obtain as close a match as possible between student aspiration and capability, and to track student performance as a means of guiding and advising them as individuals across the stages of their UQ and Faculty journey.

- Facilitate learning across the range of available modes, be they traditional or digital, as another means of personalising the student experience.

On Student Experience

The quality of student experience matters to all concerned. For the student at its centre, it will be assessed from two entwined yet distinct perspectives: as a key element in assuring the viability of individual learning outcomes, and as a measure of the value derived from the investment of the student’s funds. For the Faculty in the first instance and the wider University in the second, the quality of the experience constitutes one of the critical elements in the shaping of reputation and thence, the attraction of future students via channels that range from word-of-mouth and to published rankings.

There is no single contributor to the quality of student experience. Rather, it results from the compounding interaction of a number of factors, some highly diffuse or broad of ambit (such as the structure of programs and their navigability) and others sharply defined or narrowly circumscribed (like an assessment process or the accuracy and reliability of timetabling).
‘We believe we can offer a signature student experience that will change the way higher education is imagined. Our vision is a transformative student experience that inspires a new generation to ask the questions that create change.’

Vision, Student Strategy 2016-2020

‘We understand our students are looking for a dynamic learning experience – one that can offer a balance of support, structure and flexibility with opportunities to build the knowledge and know-how to compete in today’s rapidly evolving workplace.’

The Plan, Preparing for Futures Far Beyond Graduation, Changing How Higher Education is Imagined

‘Extend access to and opportunity for student engagement with global extension experiences involving studying, working or volunteering in cross/multi-cultural settings.’

Goal 1: Game-Changing Graduates, Student Strategy 2016-2020

In that respect, five fundamental position statements bear making from the onset:

- The Faculty recognises the criticality of student experience, and the quality of that experience, for the students and for itself

- The Faculty recognises that it has a critical role to play in delivering an experience of superlative quality for its students. It also recognises that producing that experience is a responsibility it shares with the wider University, as not all aspects of experience creation lie within its control
As for those aspects that do lie within its control, the Faculty will do its utmost to raise them to the highest standard that it can – and maintain them to that standard over time, addressing in the process the unevenness in quality that characterises its current performance across disciplines and activities.

The quality of experience is a Faculty concern rather than a discipline or School-limited affair. It will therefore be approached and dealt with as such, through the development and introduction of shared standards, policies, practices and metrics, to be ‘realised’ in disciplines and Schools.

Quality of experience results from the quality of operation in individual links along the length of the activity chain described earlier. All links in the chain matter and contribute to the overall achievement of quality.

Put simply: generating an experience of superlative quality for students is (a) everybody’s business; (b) every day’s business; and (c) evenly shared business, Faculty-wide. In the paragraphs that follow, we discuss ‘non-chain’ elements that are likely to contribute further to the quality of student experience.

Enhancing the Quality of Experience: Seamless, Student-Oriented and Staff-Supportive Operations

One of the weaker points in the Faculty’s performance resides in the efficiency and effectiveness of its day-to-day operations. Current arrangements – and the performance they produce – speak to:

- The lack of a shared, overarching and ‘acted-upon’ service ethos that puts customers first (where the ‘customers’ in question are either students or staff (or both) and is sensitive to the rippling impact of decisions in a highly dynamic web of interdependent actors and agents.

- The lack of a shared, Faculty-wide, cross-discipline, cross-School, strategy-focused, longer-term view by which to unify outlook and set the compass for the planning and prioritisation of necessary or desirable improvements to individual professional, administrative, technological and infrastructural support activities.
• Resourcing levels and structures that are designed for resource-intensive, human-dependent rather than AI-assisted interventions, and thus do not deploy existing resources to best effect nor necessarily

• Fragmented, unreconciled and often outdated approaches to, and standards of, service delivery that spans the entire student and staff activity chain as an active continuum

• An information and communication systems environment that is too often antiquated in its parts, disjointed and fragile, extended as it has been via incremental, largely ad-hoc and necessity-devised patches of uncertain reliability and questionable sustainability.

Jointly and severally, these weaknesses have affected the quality of student experience, frequently translated into an added burden of work for staff and, regrettably, also raised the Faculty’s risk levels to unacceptable heights. This state of affairs is dangerous, unsustainable and far removed from the operational standards that the Faculty wishes to demonstrate and be known for.

Resolution 17

The Faculty recognises the critical part that smooth, well-integrated, outcome-oriented, AI-supported, efficient and effective day-to-day operations play in the quality of experience students and staff encounter.

It also recognises that present-day arrangements are unfit for the future that the Faculty is designing for its students, its staff and itself as an academic institution within the wider University.

The Faculty will continue to pursue with all necessary vigour its current strategy-directed, comprehensive and integrated change program for administrative, professional, ICT and infrastructure functions. It will do so with a clear view to having those same functions perform in a manner that delivers a seamless, professional, highly-responsive and technology-savvy operational performance for all those involved: students, staff and the wider University.
In so doing, it will take care to capitalise on work already put in train in a range of support environments over the last twelve months.

Enhancing the Quality of Experience: A Closer Association between Education and Research

The University is determined ‘...to embed [its] research excellence within the core of [its] teaching to gain cutting-edge knowledge with a highly-valued and distinctive skill set’\(^3\), an ambition which it sees as a distinct initiative that aims to ‘...create inquiry-based learning opportunities that incorporate UQ’s cutting edge research to build student’s advanced knowledge base and skills critical to employability’.\(^4\), \(^5\)

The Faculty shares the University’s view regarding the many benefits to be had for all involved in bringing about an effective rapprochement between its education and research endeavours. The close association of education with research is expected to act as:

- A powerful motivator in the development of a sense of purpose, that will also give added impetus to learning
- An extraordinary aid to discovery for the students involved
- A critical driver in the experience of engagement in a community of science-based and human-directed endeavour
- A generating source of added capability, creativity and intellectual horsepower from which the research endeavour itself can only benefit.

All faculties look for the opportunity to see their students ‘engage’ with the real world. Through its network of clinical care providers, research institutes and research centres, the Faculty of Medicine is particularly well-positioned to bridge

\(^3\) Our Students’ Challenges are Our Challenges, Student Strategy, University of Queensland
\(^4\) Ibid., Initiative 2, Goal 1: Game-Changing Graduates
\(^5\) Using a vehicle such as the University’s Undergraduate Research Program, for instance
the education-research divide and make engagement in research an integral part of its education process.

Resolution 18

The Faculty recognises the breadth and depth of the benefits that would accrue to all participants, were its education effort to be better meshed with its research effort.

As part of the review of curricula discussed earlier in this document and of the pedagogies used to pass on the knowledge and skills involved, the Faculty will look to devise the means whereby its students can be exposed to, and participate in, purposeful research by drawing, in particular, on the opportunity that its research centres and institutes present.

Enhancing the Quality of Experience:
Fostering a Sense of Community

The Faculty is a vast body, a large beast of many geographically distinct (and distant) parts, into which it can be difficult to find one’s feet – an environment too wide to encompass and attach oneself to, to meaningful effect, even where a program is concerned given the size of the cohorts involved.

This is the terrain in which personalisation can lead to isolation, unless a counterbalancing sense of community can be made to prevail – a concern that rejoins, in a roundabout way, the Faculty’s stated desire to tend to its students’ general well-being.

Some of our most formative, influential and lasting friendships develop during university years, as do some of the associations and networks that will be precious in later life. With that in mind, the Faculty wishes to provide, as best it can, the conditions that will enable students to derive maximum benefit from the human side of their membership in the Faculty. To that end, it will look to:
- Encourage learning in team and project environments, with particular attention to the multi-disciplinarity of both teams and projects

- Introduce a mentor or ‘buddy’ system capable of providing students with the precious guidance and support that (somewhat) senior peers can offer; and

- Put to good and productive use the information it gathers on student performance as a means of better-targeting the individual support it can offer them.

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**Resolution 19**

The Faculty acknowledges the importance of a sense of community as a fundamental element in the quality of student experience; as a material contributor to later professional life through the networks and connections established; and as a critical component of overall well-being during students’ involvement with the Faculty.

With that in mind, the Faculty will seek to use teams and projects as vehicles for the broadening of students’ connections and the formation of his or her support groups; to introduce support mechanisms such as assigned mentors or buddies; and, more generally, to have a particular care for the students’ well-being and successful adaptation to University and Faculty life, as a fundamental ingredient in their ultimate success in their chosen course of study.

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*Enhancing the Quality of Experience:
The Broadening of Experiential Horizons*

The University’s Student Strategy calls for ‘global extension experiences’ that involve studying, working or volunteering in cross-cultural and multi-cultural environments.⁶

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⁶ See Initiative 5, Goal 1: Game-Changing Graduates, Student Strategy 2016-2020
The Faculty sees such experiences not only as an important means of personal enrichment, but also as an important element in the education and formation of health professionals. Exposure to different environments, circumstances, conditions and systems complements the formal learning that takes place within the confines of University and Faculty facilities, as well as those of partner institutions, by deepening and broadening it.

The Faculty is well aware of the value that attaches to these ‘extension experiences’ – a value well-recognised furthermore by those who benefit from the Faculty’s association with the Ochsner hospital system in the United States.

That said, the extension experiences on offer through the Faculty need not be as formally structured as the Ochsner one. They can take the form of local practicums or placements and internships in partner organisations, from research centres to commercial, private-sector enterprises operating in a kindred field. They can be local (i.e. occurring in Australia) or international.

The point is simple: The Faculty should draw on its extensive network of participating organisations and ‘install’ itself at the centre of a web of diverse extension opportunities that it will encourage students to take up. In some instances, it may even choose to integrate such experiences into the curriculum, and recognise their value as credits towards the completion of a specific course of studies.

Resolution 20

The Faculty understands the importance and the benefits that students derive from the acquisition of study-related (or professional development-related) experience in circumstances that differ from their immediate ones, however rewarding these may be.

The Faculty will enhance and promote the meaningful extension experiences on offer to its students, given the important and integral part they play in the education and human development of job-ready, ‘game-changing’ health professionals.
On the Role of the Faculty’s Educators

[The University will...] ‘develop contemporary and comprehensive ongoing professional development provisions that support and reward reaching and learning performance and facilitate career progression.’


[The University will...] ‘support a greater involvement in direct teaching by more of UQ’s staff to help embed our research excellence within our teaching capability.’

Initiative 5, A Teaching-Engaged Staff Profile, Goal 3: Dynamic People and Partnerships, Student Strategy 2016–2020

[The University will...] ‘involve more research-focused staff in teaching activities, and invest in support staff who can assist academics with best-practice digital delivery tools and content design.’

Goal 3: Dynamic People and Partnerships, Changing How Higher Education is Imagined, University of Queensland

There is no doubt that the days of ‘magisterial’ knowledge delivery – and those of near-monopolistic access to science and information – are well and truly gone. Universities no longer have a corner on the information market; those who attend them have different learning habits and expectations; and digital communications have redefined a great many interaction behaviours for good.

In the process, the nature of teaching has evolved, as has the role of those who are tasked with teaching in higher-learning institutions: from undisputed
authorities dispensing truth in their subject matter, they have increasingly become guides in the vast fields of knowledge and information pertinent to their disciplines, facilitators of learning, development mentors and curators of the education process.

Excelling in that newly-defined capacity requires a substantial, considered and co-ordinated approach to change. It is a journey that the Faculty is determined to make; but not only that: in so doing, it wants to:

- Earn a reputation for advanced curriculum design and excellence in innovative delivery
- Achieve excellence in the productive fusing of its teaching and research endeavour, across disciplines and Schools
- See the quality of its teaching endeavour recognised in national and international teaching awards; and, ultimately,
- Find itself in a position where there is healthy competition for a place within the ranks of its teachers.

In that respect and with the future in mind, three fundamental positions arrived at in the course of Workshop 1 discussions bear restating:

- The Faculty is concerned with the education of students enrolled in its programs, a process that includes, but is clearly not limited to, teaching alone
- The Faculty sees its responsibility for education as a shared, Faculty-wide one, in which all have a role to play, irrespective of discipline or School affiliation
- The Faculty’s aspiration in matters of education is one of excellence, in a construct that values equally education and research as the two enduring facets of its wider function.

There is work to do if the Faculty is to attain excellence in education in general and teaching in particular: for instance, the Faculty’s teaching, as experienced by students, is of variable quality, as ratings attest; while some Schools have a more
structured, systematic and better-organised approach than others to the practice of teaching, the same cannot be said of standards at Faculty level, which lack cohesion; and a particularly heavy reliance on sessional staff works makes it difficult to obtain and maintain consistency of approach, practice, materials, formats and technology usage – all of this moreover, in a system that has tended to treat teaching as a poor cousin to research, where recognition, prestige and promotion opportunities have traditionally lain.

Faculty-wide, there is a ship to turn around when it comes to teaching. ‘Turning that ship around’ means, inter alia:

- Developing and articulating a Faculty-wide approach to teaching: its purpose, its intended outcomes and its anchor philosophies, pedagogies and practices, for both the academic and clinical branches of the teaching endeavour

- Developing and articulating the standards and metrics that will test and measure the delivery of teaching in accordance with the above

- Recognising and harnessing to best effect the full educational capability that the Faculty can draw upon: academics and clinicians certainly, but also alumni, PhD students and partner organisations, introducing students to the rich mix of knowledge sources and expertise they can access via the Faculty

- Developing the materials and introducing the mechanisms that will define the Faculty’s specific expectations of those who teach; and introduce those who teach to the whole of the curriculum, so that their contribution is contextualised and harmonised with the other parts of that curriculum (much as the School of Biomedical Sciences already does, although in a manner ‘adjusted’ to Faculty and discipline-specific levels)

- Identifying and implementing the technological base (specialist, technology-savvy support expertise, platforms, tools, facilities) needed to support effective, up-to-date teaching practice and delivery at scale in a digital age – material design included
Developing and introducing the performance monitoring and improvement methods that will serve to lift the quality of teaching through means such as mentoring, ‘buddying’ and peer review

Developing and implementing a career model that acknowledges the contribution of educators to the Faculty’s (and the University’s) endeavours, be those educators academics or clinicians; recognises the importance of ongoing professional development; rewards excellence in the provision of education and teaching; and offers attractive career prospects for those whose gifts and passion lie in the field of education rather than that of research.

Develop and introduce Faculty-wide provisions for the protection and enhancement of the Faculty’s teaching capability through strategically-minded succession planning, so that the ‘teaching asset’ it holds grows in value and strength, and does not face depletion for lack of foresight.

Resolution 21

The Faculty will give effect to an operating model in which the value of teaching is recognised on a par with that of research.

It will do so in an integrated and comprehensive manner that recognises the many parts involved in the proper structuring of its teaching endeavour, including: teaching philosophy, objectives and pedagogic methods; teaching standards and metrics; the harnessing of all resources available for application to teaching; the integration of individual teaching contributions into the curriculum as a whole; digital technology platforms, tools, facilities and support expertise; teaching-oriented career recognition, rewards and progression; and protection and enhancement of the sustainability of the Faculty’s teaching capability in the longer term.
Part 3:
Research in the Future Tense

Being the record of the positions reached as a result of Workshops 1 and 3 discussions regarding the Faculty’s decadal intentions in respect of its research enterprise.

The material is subject to review, emendations and enhancements as the strategic reflection reaches Workshop 4, the last in the 2017 cycle associated with the development of the Faculty’s decadal plan.
The Faculty’s Research Agenda: Links, Alignment

Linking Two Sequential Reflections on the Subject of Research (Workshop 1 and Workshop 3)

Like the education-directed reflection set out in the previous paper, the collection of research-centred thoughts set out in the remaining pages of this document does not proceed ab nihilo. Its broader foundations were laid in discussions that took place during Workshop 1, which Workshop 3 deliberations extended and deepened in definitive ways.

The substance (and some of the phrasing) of the argument framed in the predecessor document (Paper 2) appears again in this record in the form of key statements inserted at appropriate points in the material. By marrying the thinking strands that emerged in the first workshop to those that found expression in the third on similar subjects, we now have as integrated an insight as exists at this juncture into the Faculty’s emerging decadal research strategy.
The various aspects of that insight are presented individually, i.e. topic by topic. For each topic, we have provided a context and, where possible and appropriate, a statement of anticipated direction, characterised as a resolution.

Considered in their entirety, the resolutions describe the Faculty’s proposed strategy in matters of research. In many instances, they also delineate the bodies of work that will require execution in pursuit of the implementation and ultimate fulfilment of that strategy.

Alignment

As indicated above, the positions taken in this paper in regard to the Faculty’s intended approach to its research endeavour spring from discussions held during the Workshops 1 and 3 in the series of four that make up the Faculty’s full strategic reflection.

Importantly, the positions also take account of the University’s broader strategy. In that respect, the Faculty’s intentions, as expressed in this Paper, are in complete alignment with the University’s strategies own ambitions.
The Faculty’s Research Agenda: Opening Positions

The Faculty approaches its future from a position of enviable strength. That strength resides in a collection of six attributes to be recognised, nurtured and grown: a remarkable collection of intellects, an enviable reputation, a resilient and collaborative spirit in research endeavours, a broad licence to explore, activity across the whole research continuum and a prized research environment in its soft and hard infrastructure.

The reflection and conclusions set out in the pages that follow take as their cornerstone a suite of strengths associated with the Faculty’s present-day make up. The Faculty’s research future will be built upon these strengths. Each of the six in the suite is defined below, as are some of the challenges that are thought likely to arise when it comes to their extension in the years ahead.

A Powerful Collection of Intellects

The Faculty gathers, directly as well as through its network of associations, a superlative collection of bright minds – scientists and clinicians alike. Many of
them enjoy an international reputation, with many more developing their
undoubted potential under the guidance of top researchers.

As a body, this gathering of minds constitutes a remarkable capability that bodes
well for the continuing advancement of science and the Faculty’s wider
contribution to society. That same intellectual capability has a further – and highly
significant – role to play: it is the force that shapes the future of research by
educating younger minds into its animus and practice.

An Enviable Reputation

Over time, the intellects involved have wrought for themselves – and brought to
the Faculty – an enviable reputation for the quality and achievements of its
research endeavours.

In that respect, the intellectual engine these minds represent has been and
remains the Faculty’s most valuable asset – one that is to be protected, nurtured
and grown. Having said that, reputations are built over time. The capital they
represent can be diluted – squandered even – if sufficient care is not taken in
maintaining the institutional conditions that have allowed the reputation to
develop in the first place, and in nurturing opportunities for successors to
enhance it.

A Resilient and Collaborative Spirit

The ethos of the body of researchers associated with the Faculty is one of ready
collaboration between like-minded individuals. This individual-driven (rather than
institution-directed) spirit has continued to prevail in the unstable circumstances
of recent years, organisational, operational, structural and administrative. This
collaborative attitude must be nurtured, strengthened and made to prosper
further, given how much greater a place interdisciplinarity is expected to assume
in the research endeavour of the years ahead.

A cultural challenge looms too: in a climate of increasing accountability when it
comes to the funding of research and the ‘returns’ generated by that funding,
there is little doubt that a measure of direction and oversight of the research
effort will make its presence felt as will various forms of (relative and absolute)
performance assessment.
Striking the balance between such developments and a long-established sense of autonomy and ‘freedom’ will have its challenges, as the paragraphs that follow further illustrate.

Investigative Freedom

Historically, the Faculty has given its research minds great freedom as to the objects of their research. This broad investigative licence has produced – and continues to generate – a rich diversity of respected and highly-regarded outcomes. The quality of these outcomes is itself a fundamental enabling condition of the continuance of the independence and curiosity-driven exploration mandate that Faculty researchers have enjoyed in years past.

That said, recognising dominant, strategic themes around which Faculty research efforts rally and develop in a purposeful and coordinated way is problematic, so abundant is the crop of outcomes and broad the range of interests and disciplines involved. The absence of themes as rallying points has one further consequence: without them, the Faculty will struggle to unite and better integrate its research, education and clinical practices. Further, if there is to be concentration of effort in areas of particular strength in search for critical mass in the years ahead, care will have to be taken to strike a productive balance between a level of effort ‘orchestration’ on the one hand and the protection of the independent investigative spirit on the other.

An Embrace across the Full Research Continuum

The Faculty’s research efforts span the continuum of the research endeavour, from discovery to translational, clinical and ‘product’ outcomes – commercialisation included.7

Whether directly or through collaborations with partners operating under a range of organisational models, the ability of the Faculty to embrace the full continuum of the research endeavour has proven one of its defining strengths.

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7 We use the term ‘product’ in its widest sense, as a means of capturing a continuum that takes in not only tangible outcomes such as vaccines, but also less tangible ones such as new treatments or procedures, advances in knowledge or contributions to health management and health policy development, for instance.
Protecting that wide-ranging research ambit will have its challenges in an environment in which the translational, result-preoccupied and benefit-oriented project is likely to gain ascendancy over the discovery-minded one, with its longer-term outlook and often unpredictable outcomes.

A Powerful, Fertile and Concentrated Research Environment

In times in which it is commonplace for institutions to bemoan a lack of infrastructural, financial and operational resources that constrain their research effort, the Faculty’s relatively enviable position in such matters – and the advantage that this position procures for it – should not be underestimated, let alone be lost from sight.

The Faculty, through its various support mechanisms, enjoys a remarkable advantage over many of its peers. Indeed, its position can well be seen as privileged, certainly within Queensland, if not within Australia and beyond.

One key question for the future relates to how the sum of the resources available to the Faculty will be best used, maintained, built upon and extended. Answering that question requires a willingness to challenge present-day arrangements (structural, infrastructural, operational and financial) for their on-going fitness, in an increasingly testing and diversifying research environment.

A second question relates to the degree of care that the Faculty exercises as to whom it invites into its advantaged circumstances: should it become, for instance, more attentive to, or more mindful of, the likely capacity of those it invites into its ranks to contribute to the Faculty’s effort and reputation? Behind the thought lie two notions: a greater consciousness of the value resident in the Faculty’s research environment and facilities, and the optimisation of the use of that value.
Resolution 22

The Faculty will exploit its clear strengths with greater purpose, method and consistency than it has in the past, in order to extract maximum benefit from their existence, their enabling character and their promise for the future.

Extracting the best from these valuable resources will mean the introduction of Faculty-wide frameworks in matters of strategy design and implementation, resource coordination and allocation, performance measurement and enhancement and, last but by no means least, improved governance.
The Faculty’s Research Agenda:
The Broader Canvas

The Faculty is acutely aware that its activities in general – and its research effort in particular – are, and will be, unfolding in a profoundly altered environment that will remain in deep and swift evolution over the years to come. The resolutions taken in respect of the Faculty’s research endeavour, as part of the wider articulation of its decadal intent and as set down in the pages that follow, take direct and considered account of the anticipated features of that environment.

Seven Future-Defining Trends

The broader environment in which research will unfold is at once rife with opportunities yet also beset with significant challenges. Six of the dominant features of the anticipated operating landscape are described in the paragraphs that follow.
The Expansion of Knowledge at an Accelerated Rate

The Faculty expects to see a marked increase in the development of the knowledge that fuels the science engine across the entire spectrum of the research endeavour, from discovery to translational applications.

The Faculty also anticipates that this expansion of knowledge will occur at an accelerating rate. Advances will follow hard on the heels of others, especially in those fields served by powerful platforms such as genomics, biostatistics and nanotechnologies.

The Extraordinary Impact of Big Data, Digitisation and Cognitive Computing

The power of data analytics, digitisation and cognitive computing is transforming science and its practice. In the process, it is opening up new realms of research endeavour, from the microbiome to synthetic biology, genomics IT, microfluidics and epigenetics.

That power will rise rather than abate and, in the process exercise a transformative influence the boundaries of which are difficult to predict. Two things are certain however: research opportunities will multiply and, with them, the criticality of organisations’ ability and competence in recognising and seizing them. Research, like much of its subject matter, will become far more fluid than it has in the past.

The Reshaping of Interactions

The impact of the knowledge expansion and of the acceleration of its accumulation will be significant. It will not only push back boundaries within fields of expertise, but is also likely to lead to a comingling of disciplines under the influence of expanding partnerships. Further, it is probable that these fresh associations will, over time and within the decadal timeframe of this plan, open up new fields of research endeavour.
Organisational Responsiveness to Rapidly-Evolving Concentrations of Effort

The interaction of these two forces is likely to accelerate research project life-cycles and the organisational models that support them, from creation to dissolution.

An institution’s ability to establish teams and projects – and set them running – rapidly and efficiently will matter more than it ever has, as will the institution’s ability to disband these same teams and projects, and re-deploy the resources and assets involved with minimum disruption and loss of capability.

Organisational Responsiveness in the Face of Multi-Party Research Endeavours

Testing as it may be when only in-house parties are involved, the task of managing teams and projects across life-cycles will prove even more challenging when the parties to the project (and the members of research teams) are likely to come not only from within the Faculty or the ranks of its present-day research partners, but equally from other institutions and industry participants with whom the Faculty has only limited (or no) ties.

Fresh, ‘unprecedented’ partnerships will see the light of day, while the flexibility to form and disband teams with ease and speed in response to opportunity will increasingly prove a distinguishing characteristic of the more successful research organisations.

Altered Funding Models and Roles

Historical funding models and arrangements are expected to come under further pressure and to morph, over time, into hybrids. Since the 1950s – and from the 1970s onward in particular – scientists have looked to government to fund the better part of their research effort, especially where discovery-oriented research has been involved.

In the years ahead, it is anticipated that the levels of funding will not keep pace with the explosion in research needs and opportunities. While it is expected that government will continue to play a significant role (and change funding rules
along the way), the share of the total research effort that established bodies have supported in the past is expected to remain static at best or, more likely, to diminish in size. Industry – even the community at large – will be called upon to step into this widening funding gap in a bid to bridge it.

**Serving and Protecting the Full Research Continuum**

This broad evolution of funding sources and mechanisms constitutes a development that, in all probability, will prove of growing consequence for the types of research that attract support in future. To add to the complexity, we are likely to see the focus of supported research increasingly influenced by short to medium-term political and economic priorities.

In this scenario, the research endeavour in general could – unless it is carefully managed – inflect towards the translational and the applied at the expense of discovery-led initiatives. In such a context, the considered, strategic management of the Faculty’s allocation of funds across the spectrum of the research endeavour will take on particular importance.

**Reflecting on Three Key Implications of the Anticipated Trends**

The interplay of the forces above will have implications for the conduct of the Faculty’s own research and that which it undertakes with partners. Some of them are easier to foresee than others. Workshop discussions focussed on three dominant ones.

**Pursuing Excellence**

Research excellence is likely to prove the critical success factor in the Faculty’s endeavour, and the key to both viability and sustainability of its research enterprise. Mediocrity, whatever its form, cannot be countenanced.

The relentless pursuit of excellence will draw in multiple dimensions of the Faculty’s total enterprise, including the quality of:
• Its research capability, as reflected in its people
• Its success in attracting, rewarding and retaining the best minds in the pursuit of its endeavours
• Its performance in grant development and management
• Its skill in the advocacy and promotion of its strengths and contributions
• Its soft and hard research infrastructure and, generally,
• Its professional approach to the management and governance of research.

Without prejudice to the work performed under many of the headings above of recent times, much still remains to be done to bring each of these dimensions to the intended standard of performance.

Scaling-Up Capacity

Faced with a scenario in which knowledge expands at an accelerated pace and research opportunities increase apace, two conclusions stand out:

• Approaches to the conduct of research used in the past will become less and less viable as the research engine labours under a multiplying load.
• Unless changes are made to the machinery of research (i.e. its organisation models, its processes, its tools and platforms), there is a real risk that the Faculty’s efforts will lose currency and relevance over time.

Addressing the necessary change will require, inter alia, the development, adoption and implementation of:

• The continuous bolstering of the Faculty’s intellectual capability
• Parallel processing of research endeavours
• High-throughput methodologies that facilitate parallel processing
• Up-to-date platforms and technologies in support of the throughput
• Strong and readily-adapted academic-clinician partnerships
• The active integration of education with research
• Fully professional business methods and systems
• Sturdy yet highly responsive governance structures.
The degree to which the Faculty attains its strategic ambitions in regard to its research endeavours will depend in a significant measure on recognising that:

- ‘Business-as-usual’ will not deliver the anticipated results
- A significant, considered and well-integrated capability enhancement program will be required, along with consequential organisational, operational and technological adjustments.

The resolutions set out in the remaining pages of this document address the two imperatives above in more detail.

**Optimising Organisational Performance**

Productive as the loose directional reins may have been in the past, they have also allowed some unfortunate – and, in some instances, suboptimal organisational features and behaviours to develop alongside the successes. Of concern under this heading are matters such as:

- Inconsistencies in the rationale behind the development of research capabilities in centres and institutes
- Inconsistencies in the allocation of discretionary funding across clinical and academic research units
- Low visibility of research endeavours across the various centres and institutes, leading on occasion to duplication and/or the inability to collaborate and leverage effort
- Counterproductive and divisive rivalries between organisational units
- A tendency from time to time to inwardly-focused approaches to the conduct of the Faculty’s research effort
- Difficulties associated with activities spread across many units, occasionally exacerbated by a geography-driven north-south divide.
Resolution 23

The ability of the Faculty to achieve the strategic objectives set out in the following sections will depend to a substantial extent on the degree to which it can focus its forces and abilities in the unwavering pursuit of three priorities:

- An absolute concentration on excellence
- An intensive scaling up of its capacity
- The optimisation of its organisational performance.

The three priorities above act as fundamental imperatives behind the Faculty’s research effort of the coming years. They have inspired a good many of the first principles enunciated in the next section and echo in a number of the more detailed resolutions that follow.
The Faculty’s Research Effort:

First Principles

All organisational efforts are shaped by, and ultimately answer to, a number of first principles. In the case of the Faculty and in matters of research, the first principles speak to five matters:

- An overarching purpose
- The scope of the research endeavour
- The standard of the research to be undertaken
- The standing that is expected to follow from the research effort
- The approach that will be taken to the research effort.

Each of the first principles is set out below. The resolutions articulated in the sections that follow sit squarely within the framework for action that the six principles define.
Overarching Purpose

The Faculty’s research effort will be explicitly and demonstrably focused upon, and serve, the betterment of individual and community health. It will do so furthermore with an eye to social equity in a world characterised by an increasing polarisation of wealth and resources between populations.

Scope of the Research Endeavour

The Faculty’s effort will embrace the full continuum of the research endeavour, from discovery to clinical practice and outcomes that enhance health and well-being in demonstrable ways – i.e. make a genuine, meaningful and lasting improvement to our social condition and quality of life.

Longevity of the Research Endeavour

The Faculty will manage its research endeavour prudently, in order to ensure its longevity. Particular attention will be paid to the management of research investments in a model that recognises established, emerging and new fields of endeavour.

Standard of Research

The achievement of excellence will be the standard and hallmark of Faculty research. Its resources, internal structures, infrastructure, culture and operating arrangements will be designed, adjusted and managed with that criterion in mind. These arrangements will apply Faculty-wide.

Standing Produced by the Research

The quality of the Faculty’s research effort will see it play a dominant and recognised role in the advancement of science, clinical practice and health system delivery. A dominant and recognised presence in research can be exercised in different ways: as a leader; as a credible and sought-after participant or partner; or as an innovative facilitator, coordinator or catalyst.
An Integrated and Purposeful Approach

In order to attain its research goals, the Faculty will take an integrated view of its research endeavours, which it will seek to orchestrate to have them yield the best outcomes possible – the Faculty’s strategic objectives among them. While respecting the importance of investigative freedom and creativity in responding to technical challenges, the Faculty will take an active role in managing the efforts, investments and available resources involved to the benefit of both Faculty and partners.

Resolution 24

The Faculty’s research ambition for the decade ahead is best summed up as follows:

- The Faculty’s research effort will be explicitly and demonstrably focused upon, and serve, the betterment of individual and community health
- It will embrace the full continuum of the research endeavour, from discovery to clinical practice
- It will nurture and support the development of researchers’ capacity, from its early stages to its full realisation and recognition
- It will be managed prudently, with a keen eye to its longevity (i.e. through the considered fostering of investigations in existing, emerging and new fields)
- It will have excellence as its standard and hallmark
- It will position the Faculty as a dominant contributor to the advancement of science, clinical practice and health system delivery
- It will reflect an integrated, Faculty-wide and strategic approach to the management and governance of the research effort in a leading institution.
The Faculty’s Research Effort: On Pursuing Excellence

The Pursuit of Excellence in a Systematic Way

The Faculty is committed to the pursuit of excellence in research – a commitment clearly affirmed as part of the deliberations surrounding the development of its decadal plan.

Further, the Faculty recognises that the pursuit of excellence should be responsive to the realities of present-day economic, operational, financial and societal environment. The mere extension of past practice into the future will not suffice: the research endeavour must be adapted to new circumstances and available resources used to best effect, in the wider service of the institution’s overarching intentions.

Using resources to best effect and extracting optimal performance implies a measure of co-ordination within a suitable structure or system that will assist not only the focusing of effort and its broad alignment to a set of Faculty-wide priorities but, importantly, the monitoring of the efficacy of that effort and, where
appropriate, the refinement of its operation and the enhancement of its productivity.

A Delicate Balancing Act

Introducing a system designed to enhance research performance cannot occur at the expense of the individual curiosity and creativity that have been (and will continue to be) the wellspring of the inspired insights behind so many advances and breakthroughs. Rather, the management structure should make it easier to nurture emerging researchers by providing the conditions that will enable and foster their development. There must be guaranteed room to play the hunch, take the risk and make the leap.

Coexistence with External Systems

The Faculty’s in-house system for the management and optimisation of the its research effort will co-exist with established (i.e. bibliometric and other) external mechanisms by which research excellence is commonly monitored. The introduction of an internal, Faculty-specific performance evaluation system centred on the Faculty’s research effort will complement existing external mechanisms. Indeed, if the system operates as intended, it should lift performance and rankings achieved in external indicators.

An Adaptive Mechanism

The Faculty’s in-house reporting capabilities will have a further advantage in that, if well used, they will provide an avenue for the considered exploration of evolving research performance standards. At a time when an increasing amount of attention is paid to the impact of the research effort as a proxy for a reading on the return produced by the investment in a research project, developing approaches to the understanding of impact (and the articulation of measures by which to assess it and make it explicit), offers the opportunity for the Faculty to make a meaningful contribution to the development of such indicators.
Resolution 25

The Faculty will introduce an internal system by which to monitor and lift the quality of its research effort. The internal system will assess the degree to which the Faculty’s research endeavours bear fruit that accord with the organisation’s research values and ambitions. The system will operate without prejudice to accepted external research quality metrics, to which the Faculty will continue to subscribe.

While the values at the heart of the research performance enhancement system have yet to be articulated in detail (along with the manner in which, and the mechanisms by which, the system is to operate), initial discussions have placed the concepts set out below at its centre.

It should be noted that the list reflects perceptions and expectations articulated earlier in this document as to the anticipated trends in research (such as the rise of interdisciplinarity and multi-party collaborative/partnership endeavours concerned with the resolution of complex matters):

- Performance of (the) individual researcher(s)
- Performance of the project team
- Performance of the partnership
- Effectiveness of project-related collaborations
- Quality of the mentoring provided as part of the project.

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8 This notion includes such matters as the efficiency in assembling, managing, developing and disbanding project teams
9 While the measure of team performance is the dominant consideration, it does not exclude the measurement of the contribution made by individual members to the team’s output. Poor individual performance should not be masked by the high performance of the team as a whole.
10 The performance in question is understood at an institutional level. It would include concepts such as ease of doing business, commercial and business professionalism, and administrative excellence.
11 One potential indicator of the quality of mentoring could be an increase in the retention of Fellows, which is currently poor and in need of attention.
Resolution 26

The Faculty’s research performance enhancement system will embody the values considered as fundamental to the successful conduct of research in the coming decade. The system will be used to incentivise efforts and behaviours that align with the nominated value set. These values will be subject to development and modification as the instrument is refined through use.

The preparation and submission of grant applications is an integral and fundamental part of the research business. A regular part of the academic calendar, the activity is time and energy-consuming.

Increasingly moreover, the quality required of applications is rising, given an environment in which:

- The projects involved – and thus their description and justification – are more complex than they were in years gone by
- Applications are growing in the sophistication that attaches to their presentation, and thus in their preparation cost; and
- The application preparation and submission process becomes more and more skilful and professional, in a highly competitive contest for limited available funds.

In looking to raise the quality of the applications submitted in whole or in part under its name, the Faculty is keen to:

- Raise its strike rate (i.e. the ratio of successful applications to submitted applications), and thus limit the reputational impost of a poor success rate
- Reduce the inefficiency burden associated with the devotion of time and energy to ill-conceived, ‘pro-forma’ or generally slipshod proposals that are unlikely to find support
- Reduce to the barest minimum the opportunity cost created by too unstructured or ill-considered a Faculty-wide grant application effort.
Resolution 27

As part of its resolve to make best use of available resources and target their utilisation to best effect, the Faculty will concentrate its energies on those grant applications with the higher likelihood of success. Conversely, it will discourage those applications that lack substance or whose proponents have met with a high level of rejection over time.
The Faculty’s Research Effort:

On Research Excellence, Critical Mass and Concentrations

The Search for Intersections or ‘Sweet Spots’

From the onset (see ‘Starting Blocks’), the strategic reflection has recognised investigative freedom as one of the particular strengths of the research endeavour supported by the Faculty and its partners. That freedom to pursue lines of scientific inquiry has been well used and produced the results that have allowed specific capabilities and international reputations to develop over time.
Definitive strengths there are, some of them represented in centres, others in institutes and others again in hybrid organisational arrangements. Among the more salient, we find:

- Antimicrobial resistance and infectious diseases
- Cancer (blood, breast and skin in particular\(^\text{12}\))
- Immunology, including auto-immune diseases and cancer immunology
- Brain and mental health\(^\text{13}\)
- Maternal and child health
- Health in the elderly (gerontology)
- Pathology and diagnostics
- Health delivery systems\(^\text{14}\)

This short list only provides an indication of notable areas of past and present research investment and success. It is certainly not exhaustive in its recitation – merely indicative of some acquired strengths.

Nor is the web of research endeavours in which the Faculty participates static: while the collection of research nodes may not lend itself to a tidy classification or structural arrangement, these same nodes are in continuous evolution and generate productive interconnections.

A fundamental question arises when considering the fitness of this system as a productive research engine for the years ahead – an engine, moreover, that (a) is expected to attain excellence in the outcomes it generates; and (b) do so in increasingly challenging circumstances.

Specifically: Will the present-day, largely spontaneous research agenda (and semi-autonomous modus operandi that supports it) produce the sufficiency and quality of outcomes required to fulfil the wider strategic objectives and ambitions? Or does the mix of envisaged circumstances and the intended level of achievement require the ‘privileging’ of some concentrations of effort over others – however

\(^{12}\) This last with an ‘affiliation’ to environmental change

\(^{13}\) A very broad label that embraces research in neuroscience to psychiatry, the latter taking in research in practice areas as diverse as first-episode psychoses, anxiety in the elderly, psychological management (e.g. as it relates to breast cancer, for instance), addictive behaviours and substance abuse in the young, physical consequences of mental illness

\(^{14}\) Including telemedicine and its extension into the use of artificial intelligence and connectivity questions
broadly framed the concentrations in question are to ensure the maintenance of an appropriate degree of exploratory flexibility?

It is important to note that the second proposition – i.e. that of research effort concentration and ‘privileging’ – is not a binary one: it does not argue for an ‘in-or-out’, exclusionary approach to the conduct of research. It does propose, however, the nomination of areas or fields in which the Faculty will concentrate its efforts in future, develop critical mass and attain highest-level recognition for its leadership.

It is not the Faculty’s intention to dictate a research agenda. Rather, it is a case of the Faculty recognising that, in the economic, societal, political and scientific environment of coming years, research ‘sweet spots’ are likely to be found at the intersection of three types of determinants.

The first type speaks to attributes of the Faculty’s research capability, while the second and third reflect important external considerations. Together, the three types provide a form of triangulation that defines the territory in which research proposals are most likely to resonate positively with external stakeholders, while also representing those projects that are best-suited to the Faculty’s capability (either in its own right or as the convenor of a collaboration, or even a significant participant in it). The paragraphs below define the three types of determinants:

Type 1: In-House Determinants

- **Those areas of research** in which it has (a) a demonstrated and (relatively speaking) superior capability; (b) a solid and acknowledged reputation; and (c) an established infrastructure (or a readily marshalled one).

Type 2: External Determinants (Broad Alignments)

- **Those questions that have a deal of societal resonance**, insofar as answering them would translate to significant improvement in individual and community health (and/or the material reduction in a societal risk or economic burden) – i.e. issues such as obesity and diabetes; healthy ageing; health and poverty

- **Those questions that, because of their complexity**, (a) require multi-disciplinary effort and (b) offer the prospect of a longer-term research horizon.
Type 3: External Determinants (Specific Alignment)

- Importantly, it is reasonable to think that research endeavours that come closest to satisfying the three categories of imperatives above will also be those that are best placed to attract funding. This will be particularly so where there is a further alignment of government health and social priorities with those of funding bodies such as the NHMRC.

With the above in mind and considering the strategic objectives of the Faculty concerning (a) the pursuit of excellence and (b) the strengthening of its research reputation in a highly competitive environment, it is logical, appropriate and prudent that the Faculty should pay particular attention and provide definitive support to those research projects and proposals that fall closest to the intersection of the internal and external interests described above.

Resolution 28

The Faculty will exercise constructive guidance over the direction of its research endeavours in order to (a) increase their likelihood of funding success; (b) optimise the use of available resources, whether in the Faculty or between the Faculty and its partners; (c) build on and enhance the Faculty’s strengths; and (d) add to its reputation for excellence in outcomes.

To that end, it will articulate the methodology to be used in managing the Faculty’s integrated research effort

Taking the Long View, Exercising Wisdom (and Hedging the Strategic Bet)

Strategic by design and with an eye to both continuity and longevity, the Faculty’s research funding and management apparatus should encompass three horizons of effort concurrently:
- Research in **established** fields in which the Faculty and its partners enjoy a solid reputation for achievement
- Research in **emerging** fields, the results of which demonstrate substantial promise; and
- Experimental, i.e. ‘**new**’ research endeavours – i.e. the ‘longer-odd’ projects, the potential fruits of which remain unknown and uncertain.

The three concurrent horizons (along with suggested levels of strategic investment in each) are shown in the diagram below.

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**Resolution 29**

**With an eye to the future, the Faculty will monitor and adjust (as appropriate) the spread of its research investments to ensure that it nurtures efforts in established, emerging and new research areas.**

The quantum of investment in each of the three categories should follow a 60/30/10 rule of thumb. The portfolio of investments will be reviewed by the Faculty in active consultation with interested parties on an annual basis, to ensure that the relative proportions are broadly and generally kept.
The Faculty’s Research Effort: On Raising the Faculty’s Research Capability

The Faculty’s research achievements depend first and foremost on the calibre of the intellects it recruits to its cause. Successful research, moreover, is a long game. Established resources must be nurtured, developed, guided, given the conditions in which to prosper and, in turn, continuously enhanced and replenished.
None of these outcomes occur by accident – least of all where excellence is concerned. While the Faculty has had some notable successes in developing its research capability over recent decades, it is by no means certain that merely maintaining current – and somewhat fragmented, even ad-hoc – approaches will produce the hoped-for results.

Earlier in its strategic reflection, the Faculty resolved to attend more carefully and systematically to the building of quality both in its student cohort and in the academic body charged with educating the members of that cohort. Now, in the case of research, the intention is similar: specifically, to take a series of steps that should enable the purposeful attraction, development, retention, on-going enhancement and continuous replenishment of its research body. The steps in question take the form of four initiatives.

Pro-Active Scouting and Recruitment of ‘Bright Minds’

It is one thing to have bright research minds come to the Faculty on the basis of its reputation. The Faculty will continue to welcome such approaches.

Importantly however, it will supplement that stream with a proactive approach to the ‘spotting’ and attraction of promising candidates for admission into its higher-degree research and PhD cohorts. Pro-activity is increasingly critical at a time when the general research environment is increasingly marked by intensifying competition for promising recruits.

Adopting this approach will see the Faculty:

- **Scout early for HDR talent** from among its undergraduate and graduate cohorts as well as in those of other institutions, both locally and internationally – and, in the latter case, with particular attention to countries such as India and China
- **Promote relevant University scholarships** to selected target audiences and individuals, encouraging the worthiest candidates to apply for them, while providing such support as may be required to assist their endeavour
- **Articulate (or rationalise) the education and training pathways** that will assist the development of candidates’ research potential through the undergraduate and graduate degree journey.
Resolution 30

The Faculty will actively and methodically prospect undergraduate and graduate cohorts for promising, research-inclined and suited minds. The scouting, attraction and recruitment efforts will explore opportunities locally and internationally in suitable institutions. The effort will be professionally structured and conducted.

Strengthening the Faculty’s Body of Clinical Academics

Clinical academics have a fundamental role to play in the Faculty’s research agenda; in deed they are essential contributors to its success, as they are to productive research relationships between the Faculty and entities such as Queensland Health. Yet the number of clinical academics remains stubbornly low.

One of the chief reasons for this situation is the material discrepancy in earning power evident between academics and clinicians, in clear favour of the latter. The marked remuneration gap between the two professions acts as a significant disincentive to clinicians turning their minds to research as academics. It also reflects the divergent agendas of the institutions involved.

A combination of direct and indirect support measures could go some way towards bridging the discrepancy: one such measure would have the Faculty ‘purchase’ a number of days per week of a clinician’s time, with that time then dedicated to research; another would involve the provision – at the Faculty’s expense – of appropriate support in the form of staff and facilities.

Whatever its nature and composition, a compensatory package (not necessarily of a purely monetary nature) must be shaped and offered to the clinician community to bolster their participation in, and contribution to, the Faculty’s research agenda.
Resolution 31

The Faculty will grow its body of clinical academics in a considered and determined way over the coming years. As part of that effort, it will develop a strategy and measures that address inhibiting present-day remuneration differentials between clinicians and academics.

Guiding early career researchers toward clinical research is not a matter of money alone. Specifically, the Faculty can do more than it does to promote clinical research. Among the many enhancements that could be brought to existing process and practice, the following would constitute priorities:

- The clarification of pathways into clinical research fields
- The advocacy, promotion and explanation of those pathways to promising individuals
- The consistency of evaluation as the early-career researchers develop their knowledge and skill in the course of their studies
- Supportive mentoring, particularly in the early stages of their research career
- Action to ensure that acquisition of a PhD is seen (and used) as a productive training ground for a longer-term career, rather than as a mere ‘ticket’ to clinical practice.

As with the earlier resolution regarding the bridging of the academic-clinician remuneration gap, the Faculty has before it a further (and non-financial) opportunity to shape a better approach to the cultivation of the research potential of its early-career researcher cohorts.
Resolution 32

As part of its effort to increase the numbers of clinical academics involved in research, the Faculty will clarify and articulate available career pathways for clinical academics and promote both research careers and pathways to suitable clinical candidates.

Promoting the Research Potential of Teaching and Research Academics

In its teaching and research academics, the Faculty has a further pool of research talent available to it – a pool that could be tapped more productively and successfully than it is at present (at a time, moreover, when the balance between the ‘T’ and the ‘R’ of the ‘T&R’ equation is coming under increasing pressure). 

As with other aspects discussed in this section, capturing the research potential resident in the Faculty’s T&R body entails the introduction of a more active and purposeful approach to the development of research potential among T&R academics. The principal elements of such a concerted strategy would include:

- **The definition of research pathways** as part of a planned career progression, so that interested parties can see a way forward that has research as one of its essential elements
- **The articulation of the Faculty’s expectations in regard to research**; of the rules that apply to its conduct (from the pursuit of research itself to the necessity of business development skills in securing funding for it); and of the standards that it must meet (including the discouragement of mediocre and generally uncompetitive research projects)

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15 A re-balancing of the ‘T’ and ‘R’ components of the present T&R package could well constitute an opportunity in its own right, if the movement between the two elements were to occur in favour of research. If that opportunity were to be taken, it would only add to the importance of the elements discussed in these paragraphs. It should be borne in mind that the rebalancing in question could reinforce the integration of teaching with research and vice-versa.
The continuing education of early- and mid-career T&R researchers in the conduct of productive research – particularly with respect to projects involving collaborations

The mentoring of these same academics by leaders in their fields, who can be taken as role models, and the parallel ongoing evaluation of the emerging researchers as to their performance and the quality of their work.

Resolution 33

The Faculty develop a systematic approach to encourage T&R staff to pursue research. As part of that effort, it will articulate available pathways; define and communicate its expectations and standards where research is concerned; provide means by which the research-focused education of T&R researchers is well supported and the research effort of early and mid-career researchers mentored.

Retaining Fellows

While the question of Fellows – and, in particular, of their retention at the close of their Fellowship – is a subset of the issues discussed above, it is a matter deserving of special mention.

Available data suggests a substantial exodus of Fellows: out of every 100 completing their fellowship, approximately 80 leave. A statistic of this nature is an indictment of some significance as to the Faculty’s management of its cohort of Fellows. The University – and the Faculty in particular – cannot be a mere ‘training ground’ for Fellows, with other institutions then reaping the benefit of Fellowship development years. The situation demands attention: at the very least, retentions should come to balance losses and ideally, come to grow at a higher rate than the departures.

Attending to the situation involves similar remedies to those set out in preceding paragraphs, among them:
The quality of mentoring and support afforded to Fellows
The attention paid to the articulation of career pathways and opportunities open to Fellows within the Faculty and its research partners
The attractiveness of the opportunity ‘package’ on offer to Fellows once they have completed their studies – a package in which stability and continuity of earnings should be feature prominently.

Resolution 34

The Faculty will take steps to staunch an unacceptable level of net loss from among its Fellows. The package of measures will address mentoring and support; the clarification and promotion of research career pathways; the provision of financial support by way of ensuring an adequate measure of stability in earnings; and the establishment of the Faculty as a destination of choice for Fellows in search of fresh challenges.
The Faculty’s Research Effort:

On Collaborations as Vital Instruments in the Research Endeavour

There is no doubt that collaborations are fundamental to the success if not to the whole at least to the better part of the Faculty’s research agenda for the years ahead. Nor is there doubts as to the Faculty’s, and the Faculty’s partners’, ability in establishing and managing highly efficient, effective and successful collaborations in years past. Collaborations are an established and integral part of the organisation’s approach to the conduct of research.
That said, it is equally true to state that the search by one party for productive collaborations with others is becoming increasingly competitive. With competition inevitably come comparisons and judgements as to the desirability of associating oneself with one potential partner rather than another. And while the ‘desirability index’ of an organisation will have many criteria, organisational responsiveness, business acumen, administrative professionalism and governance quality will be found among them – the sum of these attributes often expressed in short-hand form as ‘easy to do business’ with. Ease of doing business has not been, unfortunately, one of the Faculty’s chief claims to fame.

It is a position that must be reversed. In the research environment we foresee, it is imperative that the Faculty approach the cultivation of collaborations in a more professional manner than it has in the past.

Here as for the research activity itself, the striving must be for excellence. Relying on a ‘business-as-usual’ approach will altogether fail the Faculty’s ambition. Instead, a partnership ‘machine’ must be built and brought to life; it must be given a strategic frame of reference for its operation, and it must be made to generate systematically assessed, consistent decisions surrounding partnership opportunities.

The task of achieving excellence in this area is a significant and ‘future-critical’ one. In practice, it will entail:

- **Developing** a far deeper and more accurate understanding within the Faculty of the ambitions, interests and needs of its existing partners
- **Participating** actively in the process of exploring, identifying and shaping research opportunities with those partners, in a systematic and consistent manner
- **Exploring** just as methodically those interests of the Faculty that are likely to coincide with those of fresh partners operating in powerful fields such as data analytics, artificial intelligence, virtual and augmented reality, and their applications to medicine, health and well-being, whether at individual or community scale
- **Cultivating** the business acumen and capability essential to the translation of a research opportunity into a funded project with both established and new partners
• **Building** the advocacy skills required to write, ‘package’ and present research propositions in a compelling manner to scientific and non-scientific audiences alike, as well as mustering support for their recognition and funding

• **Articulating** and implementing the methodology and framework that will facilitate consistent risk assessment and management surrounding proposed collaborative, multi-party ventures and projects

• **Using** management processes and procedures surrounding the exploration, analysis, establishment and management of collaborative ventures that speak to the Faculty’s business orientation, its commercial savvy, its organisational and financial structuring creativity, its legal efficiency, and its administrative professionalism

• **Aiding** the development of collaborative research endeavours by providing ready access to information surrounding past and current partnerships, collaborative networks and similar partnership-building essentials.

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**Resolution 35**

**The Faculty will raise its capability for collaboration to have it rank among the best among peer research-intensive institutions**, in an environment in which productive partnerships will increasingly hold the key to the shaping of compelling funding proposals and the contenders’ credible claim – and actual capacity – to tackle complex health issues of recognised societal relevance.
The Faculty’s Research Effort:

On Research Funding and Funding Methods

Bidding for research funds is a hard, increasingly professional affair and securing an allocation of the available purse a highly competitive business. The funding allocation rules are evolving; the problems the research seeks to address often are ones of substantial complexity; the costs of investigative research are on the rise; the notion of return on investment (however one defines the notion of return) has gained ground in the minds of the bailers of monies, while the recipients of funds are held to rising standards of accountability.
While there never was a golden age of research – a legendary time when universities were thought to bathe in deep, ever-renewing ‘rivers of gold’, there is little doubt that the game of funding the research effort has grown substantially tougher of recent decades. There is, moreover, no sign that the challenging conditions will ease; indeed, the expectation in many quarters is that the reverse is more probable.

The Faculty’s decadal plan anticipates that the funding of research will:

- **Remain challenging**, with success generally a hard-fought outcome in the face of the tough and determined competition offered by other well-regarded institutions intent on growing their particular research turf

- **Continue to evolve** into a more and more professional affair, in which marketing flair, business rigour and commercial savvy take on even more importance than they have of recent years, alongside the quality of the scientific proposition itself

- **Involve the private sector** in the funding of research enterprise to a substantially greater level than has been the case in the past. While likely beneficial to the whole endeavour, that greater involvement could naturally inflect that same endeavour toward the translational and the applied rather than the discovery-oriented segment of the research continuum, unless investment is carefully managed across the spectrum by the benefiting institution

- **Witness a diversification of funding sources and models** beyond the traditional (often government-linked or supported) participants, mechanisms and arrangements. Community-driven funding of research projects are already part of the landscape. As non-traditional parties declare their direct interest in research ventures, we should expect to see creative forms of financial engineering become increasingly common in the research funding arena.
Faced with these anticipated conditions, the Faculty:

- **Rejects the view that ‘business-as-usual’ will serve its strategic purpose** in funding research that can lay claim to excellence; and that a mere ‘acceleration’ of existing approaches (i.e. ‘pedalling harder on the same bicycle’) will answer the challenge

- **Must rethink its approach to the preparation of grant proposals** (and the on-going support of these proposals until adjudicated upon) to have it acquire the professional attributes that speak to an appreciation of the importance of marketing, business-like management, commercial savvy and entrepreneurialism – however foreign (if not tedious or altogether fatuous) such characteristics may seem to the scientific mind

- **Recognise and engage far more widely and easily than it has done so far** with non-traditional parties whose (commercial) interests (actually or potentially) dovetail with those of current and future health-oriented research – data and technology-oriented companies in particular, and make room for disruptive thinking in its view of the world

- **Expand and recast its thinking surrounding funding sources** beyond the familiar circle of bailers of research funds, their programs and mechanisms. The rethink should consider the Faculty: casting its net beyond Australian shores and internationalise its funding outlook; examining the potential of alternative funding sources (such as crowd-funding engines for certain types of projects); exploring the leveraging of funding using non-cash contributions (such as the provision of personnel, equipment or facilities; investigating financial engineering opportunities as they may apply to the funding of research (issue of bonds or other financial instruments); become more systematic and professional in matters of individual and corporate philanthropy, often highly responsive to health-oriented research; and soon.
Resolution 36

Given the changes occurring in the funding environment (rules, practices, rising competitiveness, professionalisation and the diversification of sources), the Faculty will review and adjust its approach to:

- The development of grant proposals
- The management of the grant process, from submission to adjudication
- Its engagement with partners (existing, emerging and new – i.e. ‘non-traditional’)
- Its use of a variety of funding models and mechanisms; and generally, to
- The professionalisation and systematisation of its funding efforts, philanthropy included.
The Faculty’s Research Effort:

On the Acquisition of Key Platforms for Research

According to Joe Lonsdale, entrepreneur and founder of the highly-successful Silicon Valley venture capital firm ‘8VC’, biosciences – in manifestations such as the microbiome, synthetic biology, genomics IT, microfluidics and epigenetics – find themselves at the leading edge of human health exploration. One defining characteristic of this development is that erstwhile biological questions have substantially become data and information questions. Mathematics (and statistical mathematics in particular) coupled with big data, raw computing power
and artificial intelligence have initiated a deep transformation of what it means to conduct research in the foreseeable future.

The Faculty recognises the importance – indeed the criticality – of ‘platform’ sciences such as statistical mathematics and their adjunct database frameworks. It also acknowledges that it lags the field in terms of its capability in those areas:

- The available expertise is dispersed and has yet to develop critical mass
- The expertise exists in nodes rather than in an integrated form
- The expertise is spread across University Faculties
- The distribution of nodes and their low visibility means that the capability can be difficult to find and thus to access.

In summary:

- **The Faculty fully recognises the place that informatics and mathematical statistics are taking in research** – and in the realms of biology and human health research in particular, as it does the fundamental nature of their contribution to the Faculty’s research in years to come.

- **The Faculty also recognises that the disciplines and supporting facilities involved are of equal and contemporaneous interest to other branches of science represented in the University,** a circumstance that makes deliberations as to the form, organisational resting place and operating arrangements of the disciplines involved a matter of University, rather than Faculty, interest.

- **The Faculty also acknowledges that, as part of the deliberations surrounding the University and its own bioinformatics and statistical mathematics needs, consideration must also be given to the capacity of other institutions and/or the private sector to meet those needs** under either partnership or commercial (rather than in-house) arrangements.
Resolution 37

The Faculty recognises the increasingly prominent role that enabling platforms such as bioinformatics and its associated underpinnings in statistical mathematics are already playing – and will continue to play – in the advancement of biological and human health sciences. It also recognises the shared nature of interests in these platforms among other University Faculties.

With that in mind, the Faculty will:

- Take an active interest and role in University and cross-Faculty deliberations surrounding the preferred approach to the acquisition, operation and use of these platforms
- Assess closely and as precisely as possible the nature and extent of the needs of Faculty’s researchers in regard to these platforms
- Ensure those needs are recognised and met as part of any University-sponsored solution
- Assess the feasibility of using collaborations with other institutions as a means of accessing necessary platform-based capacity and capability, in the short or long term
- Assess the cost-benefit advantages or disadvantages of using third-party providers to the same end
- Consolidate the outcomes of the above into a substantive Faculty platform strategy for the coming 5 to 10 years.