The role of ARIC in the Australian research integrity system

1. Research Integrity in Australia

Research integrity in Australia is not governed by specific legislation. The primary guidance document is the *Australian Code for the Responsible Conduct of Research* (the Australian Code). First released in 2007, a review of the Australian Code was undertaken in 2016 and 2017 with a final revised version expected sometime toward the middle of 2018.

The current Australian Code comes in two parts – Part A which describes principles and responsibilities for responsible research and Part B which outlines a process for handling allegations of research misconduct. A definition for research misconduct is also provided. Based on consultation documents, the revised Australian Code will present a much-simplified picture with high level principles (eight) supported by sets of responsibilities for researchers (16) and institutions (12). A definition for research misconduct is provided but the decision on whether or not to use it will be left to institutions. A guidance document, which is not formally part of the Australian Code, provides this revised definition of research misconduct and outlines the high level steps that should be taken in consideration of potential breaches of the Australian Code. The rationale for this shift stems from the recognition that there are a broader range of practices that impact on the integrity of research (sometimes referred to as questionable research practices, QRPs) than those that might meet some definition of research misconduct, and that to ensure the integrity of Australian research, institutions should also consider and respond appropriately to these QRPs. The discussion paper attached (Appendix 1 - The problem with research misconduct) expands on this rationale.

A summary of the Australian research integrity system is presented on page 22 of the discussion paper available at https://www.researchgate.net/publication/322538179_Discussion_Paper_-_The_APEC_Guiding_Principles_for_Research_Integrity. This paper, prepared as part of an Australian government funded research project, is the first step in the development of a set of Guiding Principles for Research Integrity for APEC Economies.

Briefly, Australia’s two largest funding agencies – the Australian Research Council (ARC), and the National Health and Medical Research Council (NHMRC) – along with a representative body for Australian universities (Universities Australia) have the lead role in setting the Australian Code. The funders provide support to the functions of ARIC. There is little in the way of auditing or monitoring of compliance with the requirements of the Australian Code, which is enforceable through funding agreements between institutions and funders. This is an appropriate framework for research integrity.

1.1 Research misconduct in Australia

There is no reason to expect that research misconduct occurs at a different frequency in Australia, but an absence of transparency makes it impossible to demonstrate this. Institutions are required to report findings of research misconduct to the ARC or NHMRC where the research or the researcher is funded by these agencies, but neither agency makes any disclosures about the number or types of research misconduct that they receive. Australian institutions do not publish any information about the number or types of allegations or findings that are made. This absence of transparency is regrettable and makes difficult to assess initiatives that may prevent research misconduct such as education and training, noting that the primary goal of such initiatives may be to improve research practices rather than inhibit research misconduct.

2 The role of the Australian Research Integrity Committee (ARIC)

ARIC reviews the process of investigation that an institution has followed in its handling of a complaint or allegation of research misconduct for cases that are brought before it. In order to be reviewed, a party to the allegation must lodge a complaint, and the complaint must be eligible for ARIC review, as outline in the ARIC Framework document.

ARIC does not investigate allegations of research misconduct *de novo* or consider the merits of findings made at the conclusion of an institution-led investigation, but only considers whether the process that the institution followed is consistent with the requirements of the Australian Code and the institutions own policy or process for managing allegations of research misconduct.
At the conclusion of a review, ARIC may make recommendations to the CEO of the relevant funding agency. The CEO will then determine what action may be taken by the funding agency or make recommendations to the institution.

ARIC neither has nor plays a role in the promotion of responsible research or research integrity, through provision of advice on training and education in responsible research practice (for example).

3 Should the UK consider a similar model?

The function provided by ARIC is of value to the Australian research integrity system. A body outside of institutions and separate from although supported by funders provides an additional level of review, and in cases where one party is not satisfied with the process used to manage the investigation an ARIC review is seen as independent from the institution and the funders (to a lesser extent).

By its nature though, ARIC is only aware of very few investigations or allegations that Australian institutions receive. Only those that are particularly complicated, or have particularly aggrieved or aggressive or querulous parties, or that have been poorly managed by institutions will make it before the Committee. Well-handled investigations, even those into very serious allegations or involving multiple parties, will not necessarily be the subject of an ARIC review. In the reporting year 2015-2016, ARIC reviewed two cases. Australian institutions would have received many hundreds of complaints over the same period.

Even where the merits of a decision or finding may be questionable, ARIC may only consider the process that was used by the institution to investigate an allegation (in accord with the ARIC framework). This is a serious limitation of the ARIC framework.

The function provided by ARIC – an independent review of the management of an allegation, and in essence a determination that procedural fairness or natural justice has been applied and delivered – can also be provided by other agencies. Australian states and territories have administrative appeal tribunals or ombudspersons that can review decisions resulting from many administrative processes. ARIC is in some senses a duplication of services already provided elsewhere, but with the advantage of being specific to research misconduct investigation which over time will add value.

There remains an absence of an oversight or guidance body whose role is the promotion of responsible research conduct. Such a body could provide advice to research institutions on education and training, on improving research cultures, and could undertake advisory audits. Research integrity is not assured by focussing solely on addressing research misconduct and its investigation.

In the absence of information about the number and types of allegations that Australian universities manage, and with a similar absence about the number and types of cases that ARIC reviews, it is difficult to find evidence that supports the effectiveness or value of an ARIC-like review body. This is not a criticism of the work of ARIC, whose members are suitably qualified and experienced, but more a reflection on the limitations that the ARIC model carries. ARIC is involved in what would be a small minority of cases, and while the value of an ARIC review in these cases is clear, the impact of ARIC on the overall research integrity system in Australia is not likely significant.

4 What alternatives should be considered?

It is our view that a legislated or legal response is not an appropriate way forward. Typically the focus of research integrity systems that are governed by law is on research misconduct at the cost of promotion of responsible research conduct. Research integrity is an academic matter more than a legal one.

Appendix1 provides a rationale for changing the way research misconduct/QRPs/breaches of research integrity are investigated. We consider that the first question to answer is whether the research in questions is trustworthy and honest (that is, does it have research integrity?). Once this is answered appropriate steps can be taken to ensure the integrity of the research record. The second question is then one of culpability and is best handled through other disciplinary procedures that deal with misconduct, however defined by the institution or jurisdiction. This ensures that appropriate focus is maintained on research integrity rather than on demonstrating that the behaviour of a researcher or researchers meets a definition of research misconduct. These are different questions, and often the first remains unanswered. Such a shift would likely reduce the need for an ARIC-style review body.
More should be done to ensure consistency in the promotion of responsible research conduct, to help raise the standard across the sector. Establishing an independent advisory body that provides guidance material, training and education, informal or formal audits, advice on research cultures and on investigating research misconduct would be a stronger signal and provide greater benefit to researchers and research in the United Kingdom. This may be more simply achieved by expanding the remit and resourcing of UKRIO. An ARIC-style review body would not have as great an impact, and may reproduce functions and services already provided by other bodies or agencies in the United Kingdom. The Centre for Research Ethics Information in the Republic of Korea is an excellent example of an independent body with a focus on education and advice to support the responsible conduct of research by researchers and institutions. The work of UKRIO is commendable, but there is much to do in the promotion of the responsible conduct of research. A better resourced or enable UKRIO may be able to, for example, conduct climate surveys of UK researchers to identify common sources of concern or provide specific advice to institutions to address issues that such surveys identify.

Given the limitations of the ARIC model and the absence of transparency in Australia which hampers thorough consideration of the impacts of ARIC, it is difficult to recommend that a similar review body should be established in the United Kingdom. If a focus on research misconduct is required – noting that this is not recommended in this submission – then the model provided by the Canadian Secretariat for the Responsible Conduct of Research is better.

April 2018

Disclaimer: The views expressed in this submission are those of the authors and are not necessarily reflective of the views of RMIT University.
APPENDIX 1
The Problem with Research Misconduct

The problem with research misconduct
Paul M Taylor and Daniel P Barr
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Summary
1. The current description of research misconduct does not work. Australian universities have not adopted it, and there is considerable diversity in the way that these organisations have defined research misconduct. The current description sets perhaps the highest standard for making a finding of research misconduct when compared to international definitions of research misconduct.

2. The connection with processes for disciplinary action covered by enterprise or workplace agreements can make it difficult for institutions to action corrections or retractions from the research record. The focus, as a result of the current definition and the connection with EAs, is on the state of mind of the respondents and not on the trustworthiness, honesty or reliability of the research in question. This must change for Australian research to be trusted, and for Australian to trust in their research.

3. The quality of research conduct can be placed on a spectrum. The range of behaviours that impact on research quality and trustworthiness extends beyond that covered by the current definition. Questionable research practices (QRPs) can have a greater impact on the integrity of the research record and can be harder to detect than cases of outright falsification or fabrication.

4. The solution proposed in the revised Australian Code addresses these problems. Removing the definition of research misconduct allows for consideration of the integrity of research and taking of corrective actions prior to determination of guilt (or guilty state of mind). Institutions may still define research misconduct in EAs, and refer findings from investigation of breaches of the Code to EA processes in order to take disciplinary action. The shift to breaches and away from the very extreme end of the spectrum allows a greater range of departures from accepted practice to be considered.

5. Research impact happens in small, iterative steps but can occasionally be paradigm-shifting. Research only works where we can trust that the research is the result of honest, accurate, and rigorous practice that we would be happy for end-users of research to rely on. Removing the definition of research misconduct from the Australian Code allows us to be more confident that Australian research is trustworthy and honest, and that users of this research can rely on the findings Australian researchers make.

Background
The consultation draft of the Australian Code for the Responsible Conduct for Research presents a significant shift in the approach taken to outline responsibilities of researchers and institutions in research integrity. It is a high level, principles-based document that provides less prescription than the current version. It is thought that this will better reflect the range of acceptable research practices across the breadth of Australian research activity, and allow greater flexibility in its implementation across the range of Australian institutions that conduct research. The goal of the document remains unchanged – to ensure that Australian research is conducted responsibly and with integrity.

The term ‘research misconduct’ is not defined in the consultation draft, and this has caused some concerns amongst the research community. Some claim that this represents a desire to ‘cover up’ instances of research misconduct, or that it is a result of lazy thinking and lack of knowledge about research misconduct.

2 https://croakey.org/raising-concerns-about-proposed-revisions-to-the-australian-code-for-the-responsible-conduct-of-research/
internationally. Others argue that the solution is to establish an independent office for research integrity, but this doesn’t address some of the important shortcomings and challenges of the current system. Certainly, while there remains such a close connection between research integrity investigations and processes governed by employment agreements it is not at all clear how such a national body could function.

This paper aims to better outline the challenges to defining research misconduct, and why, in the Australian context, a definition might not be the best solution. We consider whether it is better to first ask questions about the trustworthiness and honesty of research and take action to ensure this, and then consider whether a particular act was deliberate and or intentional and what (employment related) sanctions are appropriate. We will outline some problems with the current definition and the status of definitions of research misconduct in Australian universities. The current Australian Code asks institutions to include processes for dealing with research misconduct in enterprise agreements and other employment arrangements. This causes problems for institutions trying to address allegations of research misconduct in an open and transparent way, and also provides a legally sound mechanism for those wishing to be less than transparent about any matter that they may be handling. There is much discussion internationally about the definition of research misconduct and a range of approaches to defining the term have been taken. Finally, we will expand on the ‘spectrum of behaviours’ that may make us question the trustworthiness and honesty of research and why the approach outlined in the draft Australian Code and the Better Practice Guide address the challenges that are extant in the Australian system.

The current definition of research misconduct and its problems

The Australian Code provides the following:

“[P1] A complaint or allegation relates to research misconduct if it involves all of the following:
- an alleged breach of the Code
- intent and deliberation, recklessness or gross and persistent negligence
- serious consequences, such as false information on the public record, or adverse effects on research participants, animals or the environment.

[P2] Research misconduct includes fabrication, falsification, plagiarism or deception in proposing, carrying out or reporting the results of research, and failure to declare or manage a serious conflict of interest. It includes avoidable failure to follow research proposals as approved by a research ethics committee, particularly where this failure may result in unreasonable risk or harm to humans, animals or the environment. It also includes the willful concealment or facilitation of research misconduct by others.

[P3] Repeated or continuing breaches of this Code may also constitute research misconduct, and do so where these have been the subject of previous counseling or specific direction.

[P4] Research misconduct does not include honest differences in judgement in management of the research project, and may not include honest errors that are minor or unintentional. However, breaches of this Code will require specific action by supervisors and responsible officers of the institution.”

The intent of the first paragraph is not clear. It is written as a threshold for determining if a complaint or allegation is about research misconduct (‘A complaint or allegation relates to research misconduct...’). It may also be viewed as a definition of research misconduct, and certainly some Australian universities have used this as a starting point for a definition of research misconduct in local policy (see later). Whether a definition or threshold, it sets a very high bar for a departure from the accepted practices outlined in the Australian Code to be considered research misconduct.

The first dot point in this paragraph asks that there be an alleged breach of the Code. This in itself is not problematic. There are many ways, minor and major, in which the Code may be breached, and given the intention of the Australian Code is to outline practices that are considered responsible for all research, this is completely appropriate.

The second dot point requires that the departure from accepted practice, either as a threshold or definition, be the result of a range of behavioural factors. Legally, this is described as mens rea (Latin for ‘guilty mind’) or sometimes ‘mental fault’ or ‘mental element’ – that there was knowledge that the behavior was wrong and

\[^{5}\] p10.1, Australian Code for the Responsible Conduct of Research (2007), paragraph numbers added
Written evidence submitted by
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it was undertaken anyway, or that there should have been knowledge that it was wrong (in the case of recklessness and negligence).

In order to be found guilty of a particular act, the actus reus (guilty act) must be accompanied by mens rea (guilty mind). These mental fault elements are common in broader definitions of misconduct and in criminal law, however, the wording of this second dot point is unclear. The application of mens rea at this stage of the process is perhaps not desirable in the research context. As we discuss later, the inclusion of mens rea element in a definition of research misconduct is certainly not universal.

First, the second dot point requires that the behavior was the product of intent and deliberation. These terms are not interchangeable or synonymous. Intent means that there was purpose behind the behavior (presumably, that is it was not accidental or mistaken). Deliberation means that there was a weighing up of different courses of action prior to taking a particular course of action. Intent can happen without deliberation, and deliberation in itself is not automatically problematic. It follows then that in order to meet this part of the second dot point, there must be evidence to support that the act was committed on purpose and after careful weighing of the options available. Both of these must be demonstrated, intent or deliberation individually are not enough. Either as part of a threshold or definition, this sets a very high requirement and is particularly difficult to demonstrate in a research context.

Recklessness in this context means that the act was committed knowing that it may cause harm or damage but undertaking it anyway. Again, the demonstration of ‘knowing’ in this context can be challenging and potentially gets in the way of taking action to ensure the trustworthiness and honesty of research. Negligence in this context is a failure to take reasonable care to avoid harm or risk. In order to demonstrate negligence, it must be shown that there is or was a duty of care in the circumstances, that the act of the respondent in those circumstances did not meet that duty, that there was harm or risk (or other adverse consequence) and that it was reasonably foreseeable, and that the harm or risk was caused by the breach of the duty. In order to meet this arm of the second dot point, the negligent act must additionally be either gross or persistent. Finally for this dot point, there is ambiguity regarding the reading of the comma separating deliberation and recklessness which could be interpreted in a number of ways. This part could have much more clearly written to ensure that the meaning is clear, for example “intent and deliberation OR recklessness OR gross and/or persistent negligence” (if indeed this was the intent).

The third dot point in this first paragraph is also ambiguous. The first issue is the idea of a serious consequence. A subjective term like ‘serious’ leaves plenty of room to maneuver – if there is desire for action or investigation, then almost any consequence can be described as serious and vice versa. The examples provided could be improved. “False information on the public record” may mean that a dataset has been completely fabricated (very serious) or that an author’s middle initial is incorrect (less serious/not very serious). Similarly and for the second of the examples provided, it is perhaps not enough that adverse effects (using a non-clinical definition of the term) on research participants, animals or the environment happen – these can be quite common, deliberate and required in some areas of research – but that the adverse events were not expected or the result of research without the necessary approvals that makes them serious. Finally for this dot point is the idea that it is only when there has been a consequence of an intentional and deliberate breach of the Australian Code, is the matter serious enough to relate to research misconduct. This is difficult to demonstrate without investigation and is perhaps out of sequence. Also, there could be many actions that impact negatively on the trustworthiness and honesty of research that do not meet the very high standard that the current Australian Code sets for research misconduct. Should we really wait until there is a consequence?

The second paragraph lists some ways in which research misconduct might be committed. It covers falsification, fabrication and plagiarism as many definitions of research misconduct do. The inclusion of other forms of serious research misdemeanor is helpful, but not exhaustive. On it’s own, it is not enough to function as a definition of research misconduct.

The third paragraph seeks to make repeated breaches – departures from the Australian Code that do not meet the threshold/definition outlined in the first paragraph – amount to research misconduct, but the second part of the sentence requires that this can only happen where there has been previous counseling. In practice, this means that a researcher who has inappropriately manipulated data across several publications but not to the very high standard set out in the threshold/definition of research misconduct and has not yet

6 http://www.lawhandbook.sa.gov.au/ch29e05e01.php
been advised that this is problematic cannot be found to have committed research misconduct. This doesn't seem right.

The fourth paragraph states that ‘honest differences in judgment in management of the research project’ is not research misconduct. It is the specificity here that reduces the usefulness of this exception. Why is only ‘management of the research project’ called out here? What about in methods used to analyze data? Is this an aspect of management of the project? This clause also states that research misconduct ‘may not include honest errors that are minor or unintentional’. This is redundant, as paragraph 1 requires that research misconduct be the result of intent and deliberation or recklessness or gross and persistent negligence and so research misconduct cannot result from an honest error, even if it is significant.

The current description of research misconduct appears at first glance to be comprehensive and provide clear guidance for those making decisions about the behavior of respondents to allegations or complaints. Deeper analysis of the current description, and 10 years of practical application, reveals that it sets a very high threshold for an act to be considered research misconduct (higher even than the definition used in the United States). The current description forces panels or investigators to understand more about the state of mind of the respondent than whether the research is trustworthy or honest, and whether it should be allowed to have impact on other users of the research. For a country with significant strategic agendas in innovation, the question about the trustworthiness and honesty of the research, and the potential impacts this will have on end-users of the research is a critical one.

The response from Australian universities.
The Australian Code was released in 2007 giving Australian universities and other research institutions 10 years to have modified their own policies, procedures and employment arrangements (with this 10 years representing 2-3 opportunities for enterprise agreement re-negotiation). How have Australian universities responded to the Australian Code?

A desktop audit was conducted in March 2017 (Taylor and Barr, unpublished). Thirty-eight Australian university websites were visited and searches conducted for research misconduct policies, research integrity policies and enterprise agreements (EAs). We searched internal policies and process to assess the uptake of the description of research misconduct provided in the Australian Code, and wanted to see how universities had connected the process with process outlined for other forms of misconduct in enterprise agreements. Definitions were considered to be departures from the Australian Code if there had been changes made that altered the meaning of parts of the current description or if it had been added to in order to change its meaning or range. Such definitions were described as ‘modified AusCode’. A connection between research misconduct policies and enterprise agreements was evident where the policy referred to the EA for determination of sanctions. An EA was considered connected to research misconduct policy where reference was made to the process for considering research misconduct, or where research misconduct was mentioned at all.

Of the 38 university home pages visited, 34 searches yielded publicly accessible research misconduct policies and EAs. Four universities do not provide any publicly accessible information about the processes used to assess complaints or concerns about research integrity which prevents those wishing to make a complaint from having any understanding of the process that they may or may not be triggering by doing so. This is a failure at the most fundamental level of transparency.

The analysis of policy and enterprise agreements at the 34 Australian universities that made these documents publicly available yielded a total of 42 definitions of research misconduct. No universities shared definitions of research misconduct, and in 14 of 34 the definitions in policy did not match with the definition in the enterprise agreement. Only one definition matched the Australian Code description exactly [Taylor and Barr, unpublished].

There was considerable variation in the 42 definitions used by Australian universities. Three clades were identified. Fourteen definitions appeared to be individual and had no obvious relation with the Australian Code description. There were 20 modified AusCode definitions that took part or all of the description provided by the Australian Code and made modifications. In most cases these modifications specified breaches of university policy instead of the Australian Code (assuming that the Australian Code is reflected in university policy) or added additional ways in which research misconduct might be committed. The remaining group consisted of 9 definitions – 6 of these considered research misconduct to be a deliberate and serious deviation from accepted practice in the research discipline and three required that the act
include misrepresentation, misappropriation and interference. Six of the 42 definitions make a distinction between research misconduct and serious research misconduct, with serious research misconduct being of a degree that may result in termination of employment. Some institutions considered that research misconduct was serious when it has the potential to damage the reputation of the university [Taylor and Barr, unpublished].

Twenty-one universities have research misconduct policies and EAs that inter-relate, meaning that in 13 universities there is no connection between research misconduct processes and EA arrangements for investigating misconduct.

It is clear that there is not an accepted definition of research misconduct in Australia, despite the Australian Code being in force for 10 years. The landscape is only likely to be more complicated if this audit were extended to include medical research institutes, hospitals, government and other research organizations.

The current description of research misconduct in the Australian Code is problematic. It contains ambiguities that make its application to a real complaint very difficult. It also sets a very high threshold that must be crossed in order for research misconduct to be shown. Australian universities have not adopted the description of research misconduct provided in the Australian Code, in either local policy or in workplace agreements, even though it has been a requirement for 10 years. There is also considerable diversity in the definition of research misconduct used by Australian universities, with 34 universities yielding 42 definitions of research misconduct and no one definition is shared. A number of universities use different definitions in research misconduct policy and enterprise agreements. It is not at all clear how this mis-articulation allows these institutions to make defensible findings of research misconduct. We cannot afford to maintain the status quo if we are to expect others to trust Australian research or that Australian research institutions can respond to research misconduct.

**International comparisons**

Australia is not the only jurisdiction to provide a definition of research misconduct. There have also been efforts to develop an internationally accepted definition of research misconduct. It is argued that such a shared definition will help international research collaboration, perhaps by sharing an understanding of what practices are considered unacceptable. We question whether the focus should perhaps be on developing an internationally attempted set of guiding principles for research integrity, rather than focusing on the extreme end of ‘bad researcher behaviour’, perhaps like that seen in the Singapore Statement9.

A 2015 paper by Resnik et al10 compared definitions from research misconduct found in international law, policy or guidelines. The comparison identified a range of definitions, but all included falsification, fabrication or plagiarism (FFP) as research misconduct. Aside from this ‘unholy trinity’ there was considerable variation in the way that research misconduct was defined. The breadth of the current Australian description is comparable to that seen in other national policy, guideline or law. This perhaps demonstrates that there is recognition that there are other ways, beyond FFP, that research can be rendered untrustworthy or presented dishonestly.

The Resnik paper did not consider whether the definitions included both guilty mind and guilty act components – that is, to what degree does the actus reus (‘guilty act’) have to be committed with a ‘guilty mind’. A review [Taylor and Barr, unpublished] of readily available definitions, and using some of the translations provided in Resnik et al further demonstrates that the current description provided by the Australian Code sets the highest bar. Australian researchers must commit these acts with both intent and deliberation, through recklessness or gross and persistent negligence. This is not seen in any of the international research misconduct definitions assessed, including the recently revised European Code of Conduct for Research Integrity11. The European definition, along with definitions from China, Japan, Finland, Netherlands, South Korea and the United Kingdom do not require that the guilty act be accompanied by a guilty mind – there does not need to be intent and/or deliberation nor does the guilty act need to result from recklessness or negligence, in order for research misconduct to be found. Definitions of research misconduct from Brazil, Germany, and the United States require that the actus reus was intentional or negligent, with only Germany requiring that the negligence be ‘gross’. The current definition provided by the Australian Code is the only to require both intent and deliberation, and that negligence be gross or persistent in order for research misconduct to be found. Australian researchers then have to commit the most egregious forms of research misconduct in order for a finding of research misconduct to be made against them under the

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9 [http://www.singaporestatement.org](http://www.singaporestatement.org)
current description. Alternatively, those found to have committed research misconduct under United States law or German, Japanese or Chinese policy would not be guilty using the Australian Code description. It is not clear why the current Australian Code sets such an extreme.

A spectrum of behaviours.
Research is a human endeavor, and, as for any activity that involves humans, there are a range of behaviours seen when competition is applied. Some will respond by working harder, others will leave the competition. Fewer will respond by ignoring the accepted practices for the competition and taking steps to give themselves a competitive advantage. When these steps impact on the trustworthiness and honesty of research, there must be a reaction that corrects the research or removes it from the record, and if the departure from accepted practice is significant then the ‘player’ should be removed from the game. This represents the extreme end of the spectrum of researcher behaviour, and in some cases would be called ‘research misconduct’.

There are other practices that are not intentional or deliberate, and not as egregious as things like outright falsification or fabrication but nevertheless have impacts on the integrity of the research. These are referred to as ‘questionable research practices’. In their seminal paper, Martinson et al 12 describe the results of a survey of biomedical researchers in the United States. The survey asked researchers to report on their own research conduct in a number of areas of responsible research practice. Of the 3247 respondents to the survey, 0.3-1.4% admitted to FFP, which in the United States is regarded as research misconduct. Other departures from accepted practice were reported at much greater frequencies – 4.7% admitted to using to same data or results in two or more publications, 10% admitted to inappropriate assigning of authorship, 15.3% to dropping data points or observations from analyses based on ‘gut feeling’, and 27.5% to inadequate record keeping related to research projects. These departures from accepted practice can have a more insidious impact on the integrity (trustworthiness and honesty) of research. They can be much harder to spot than outright fabrications and falsifications. These findings have been generally supported by other surveys of researcher behaviour although occurrence of research misconduct and questionable research practices is typically higher when researchers are asked to report on the conduct of their colleagues rather than their own.

It is worth highlighting that additional surveys and meta-analyses still suggest that research misconduct and questionable research practices are still not ‘accepted practice’. That is, the majority of researchers conduct their research ethically and with integrity, mindful of the importance of their research and the potential impacts that it will produce. Responsible research is the norm.

12 Nature 435, 737-738 (9 June 2005) | doi:10.1038/435737a
We understand then that there are range of practices that can reduce the trustworthiness and honesty of research. A definition of research misconduct draws focus on those extreme or egregious acts at the cost of taking action for some of the less serious but equally or more impactful QRPs. The process of investigating research misconduct itself also centres on the state of mind of the researchers involved because of the way the research misconduct is currently defined in Australia. The difficulty in making a defensible finding of research misconduct can make it hard for action to be taken to correct the research record when this action is only taken at the conclusion of a research misconduct investigation. Where these investigations are tied too closely to investigations under workplace law, it may not in fact be possible for institutions to make such corrections because of the concomitant requirements for confidentiality and privacy.

We don’t need a definition of research misconduct.

The current description of research misconduct in the Australian Code is problematic. The connection with employment processes for investigating other forms of misconduct carries confidentiality and privacy obligations that may prevent action being taken to correct the research record. This is not an acceptable position for Australian research.

Research conduct occurs on a spectrum, and the current description of research misconduct draws our attention to the most extreme end of researcher behaviour. Questionable research practices – research practices that do not amount to research misconduct but still impact on the trustworthiness and honesty of research – occur at higher rates and are possibly harder to detect than outright falsification or fabrication of data.

These problems can be being to be addressed by not providing a definition of research misconduct in the Australian Code. Instead, it is suggested that consideration is given to any departure from the revised Australian Code, and where required an investigation is conducted in order to determine if the research can be trusted and is honest and consider if it should be allowed to have impact. If, in this research integrity investigation or investigation into a breach of the Code, it is discovered that the departure may also represent a breach of local policy or misconduct (however defined) the matter can be referred. This allows for any corrective or remedial actions to be taken without hindrance, and for sanction against researchers to be taken if they are required.

Not all breaches of the Code will require formal investigation. Where the breach is simple and can be easily corrected such action should be taken. Where other processes exist or apply, for example authorship dispute resolution procedures or consideration by ethics committees, these processes should be applied first, and if the matter is resolved then another investigation should not be required. If, at the conclusion of these processes their remains concerns about the trustworthiness or honesty of research or that a breach of local policy that might amount to misconduct has occurred, the matter can be referred.

The approach outlined in the revised Australian Code separates the guilty act from the guilty mind while still allowing for both aspects of ‘misconduct’ to be considered. It removes barriers to taking action to ensure the...
trustworthiness and honesty of Australian research. It broadens the range of things that will require some consideration to more clearly include QRPs. The outcome will be increased confidence in Australia’s research outputs. It is not an attempt to hide research misconduct, which will still be found (and not reported publicly), and those researchers whose conduct has departed from accepted practice in substantive and unacceptable ways may still be ‘taken out of the game’.

Research impact happens in small, iterative steps but can occasionally be paradigm-shifting. Research only works where we can trust that the research is the result of honest, accurate, and rigorous practice that we would be happy for end-users of research to rely on. Removing the definition of research misconduct from the Australian Code allows us to be more confident that Australian research is trustworthy and honest, and that users of this research can rely on the findings Australian researchers make.