



UNSW
SYDNEY

Research Integrity@UNSW

1 January – 31 December 2021

ABOUT THIS REPORT

This report provides an insight into complaints received by the Conduct and Integrity Office (CIO) relating to the conduct of research by UNSW researchers between 1 January and 31 December 2021.

Limitations

Information in this report is based on information recorded by the UNSW Conduct and Integrity Office on 31 December 2021.

Conduct and Integrity Office

Division of Planning & Assurance
April 2022

Contents

AT A GLANCE	3
INTRODUCTION	4
UNSW Research integrity framework	4
COMPLAINTS	5
What they were about	5
Who they were from	6
How they were managed	6
INVESTIGATIONS	8
Which disciplines	9
What the matters involve	9
What level of researcher experience	9
OUTCOMES	11
KEY RISKS & CONTROLS	13
KEY DEVELOPMENTS & ACTIVITIES IN 2021	15
GLOSSARY & DEFINITIONS	16
APPENDIX	17

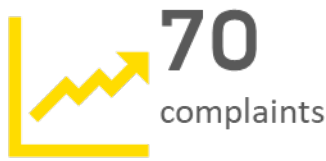
Conduct and Integrity Office (CIO)

The Conduct & Integrity Office supports UNSW's position as Australia's global university in research and educational excellence by ensuring that the principles of respect and integrity underpin the pursuit of knowledge at the University.

The CIO manages:

- Student conduct and integrity
- Research integrity
- Reports of wrongdoing
- Reports of sexual misconduct
- Complex complaints
- Prevention and engagement
- the UNSW Complaints Management System.

AT A GLANCE



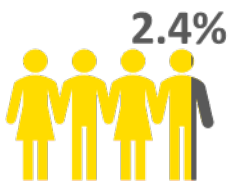
Continuing upward trend in number of complaints year-on-year (p.6)



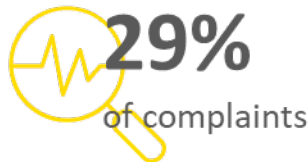
* Two complaints raised 26 matters (p.9)



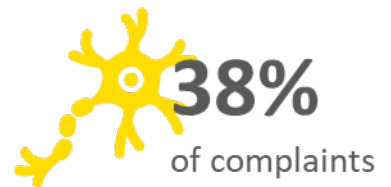
Record number of matters generated from complaints in 2021 (p.9)



Complaints made against a very small proportion of UNSW researchers (p.6)



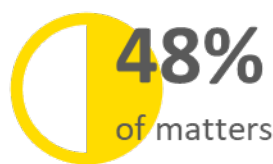
Failure to conduct research responsibly have been the common focus of most complaints (p.6)



Most complaints in medical and medical related disciplines (p.7)



Experienced researchers represented in almost half of matters (p.10)



Matters not substantiated 52% were substantiated/partially substantiated (p.12)



Of matters finalised found to be a minor breach of Research Code

INTRODUCTION

UNSW Research integrity framework



Figure 1: Principles of Responsible Conduct of Research set out in the UNSW Research Code of Conduct

The UNSW [Research Code of Conduct](#) (Research Code) articulates the principles of a responsible research culture and describes behaviours and standards expected of all UNSW researchers. It forms the basis of the University’s framework for research undertaken by UNSW researchers (Figure 1).

The Research Code is supported by the UNSW [Research Misconduct Procedure](#) (RMP), which sets out the process for handling complaints and alleged breaches of the Research Code at the University. An overview of the process is set out in the Appendix on page 17.

The Research Code and RMP are based on the *Australian Code for the Responsible Conduct of Research 2018* (Australian Code)¹ and *Guide to Managing and Investigating Potential Breaches of the Code, 2018*² respectively.

The Conduct and Integrity Office (CIO) promotes responsible research at UNSW; manages complaints and alleged breaches of the Research Code; and ensures compliance with statutory and legal requirements set and regulated by a range of external authorities (Figure 2).

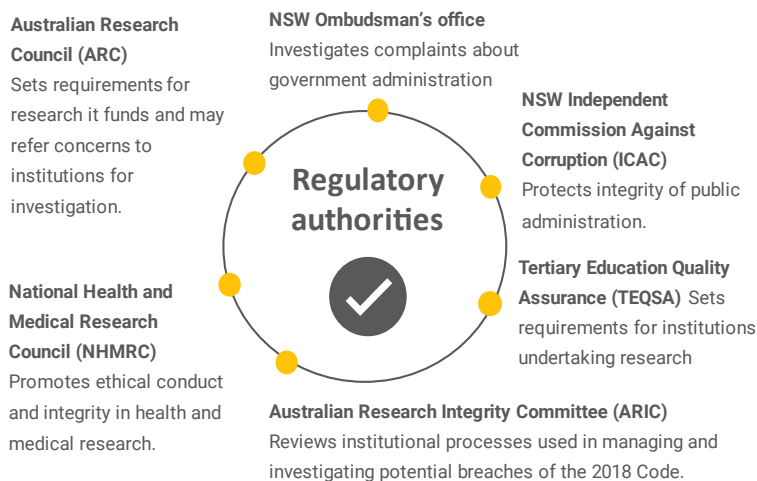


Figure 2: Key statutory and regulatory authorities

¹ *Australian Code for Responsible Conduct of Research 2018*. National Health and Medical Research Council, Australian Research Council and Universities Australia. Commonwealth of Australia, Canberra.

² *Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research 2018*. National Health and Medical Research Council, Australian Research Council and Universities Australia. Commonwealth of Australia, Canberra.

COMPLAINTS

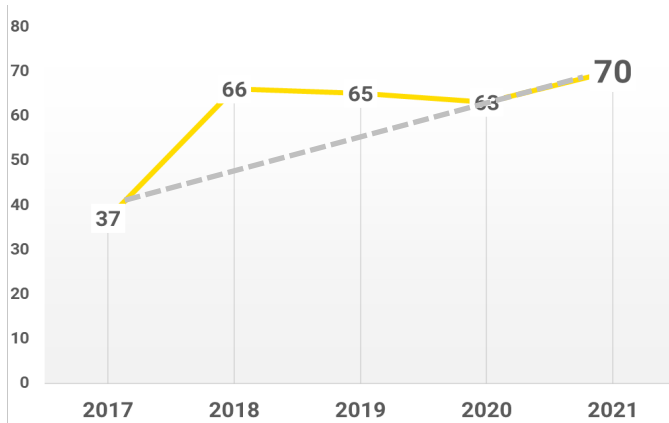


Figure 3: Annual comparison of complaints and queries received 2017-2021

The Conduct and Integrity Office (CIO) received 70 complaints and formal enquiries relating to UNSW research and researchers between 1 January and 31 December 2021.

As Figure 3 shows, this maintains a relatively small but steady increase when compared with previous years.

Of note is that **complaints and allegations have only been made against a very small proportion (2.4%) of the University's 2,860 researchers³.**

The number of complaints received over the last 12 months were also consistent with the number of complaints received by other Go8 institutions of potential breaches of the Australian Code.

What they were about

As Figure 4 below shows, most (29% or 20) of the 70 complaints received in 2021 allege a failure to responsibly conduct research and deviations from approved protocols (26%), followed by authorship complaints (13%).

Of the 20 complaints alleging failure to conduct research responsibly, just over half (55% or 11) of the 20 complaints raised concerns that research conducted did not comply with legislation, policies and/or guidelines.

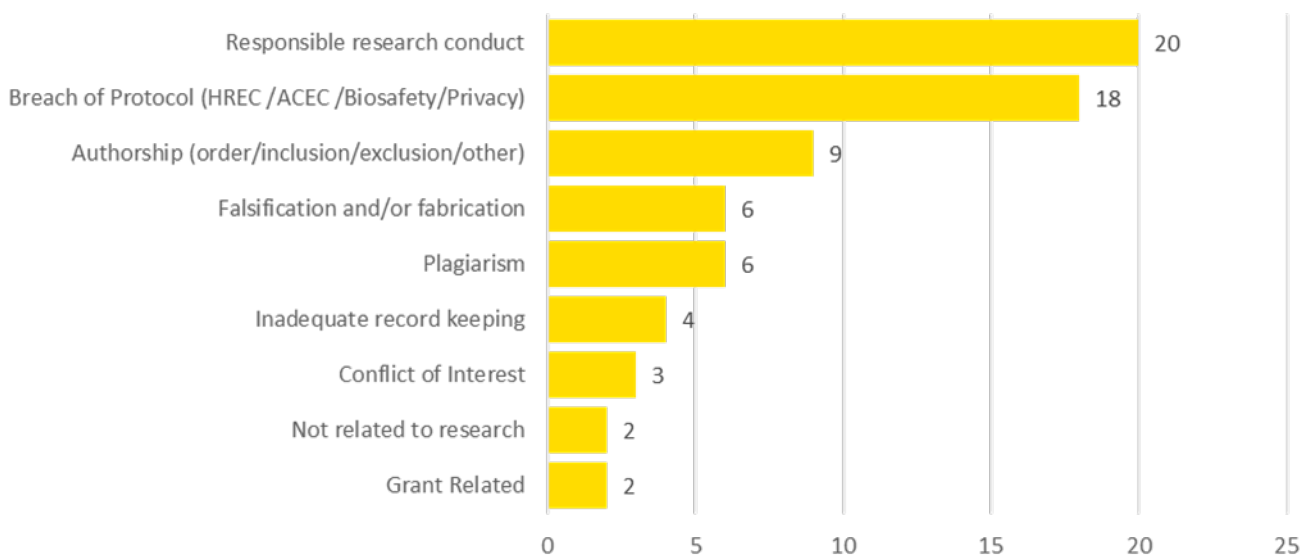


Figure 4: Primary concerns raised in complaints and queries raised in 2021.

³ Source: Higher Education Statistics - Staff Data – Department of Education, Skills and Employment, Australian Government (dese.gov.au) Research only function and Teaching and research function – downloaded: 24 February 2022.

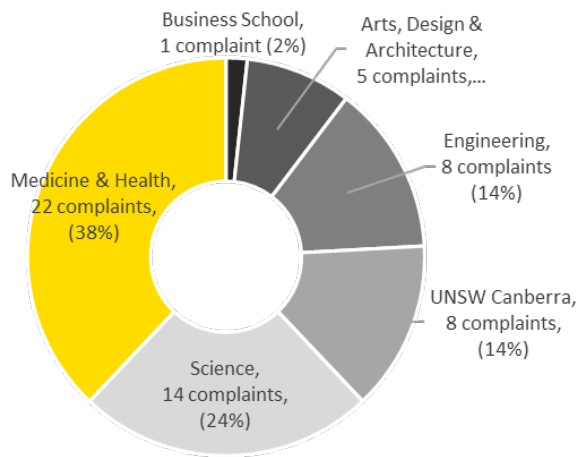


Figure 5: Breakdown of complaints and queries by respondent Faculty

failure to acknowledge contributors to research output, remained at similar levels to previous years. This has largely been due to efforts by the university’s Research Integrity Advisors (Associate/Deputy/Vice Deans of Research) to mediate the disputes before they are formally raised with the CIO.

As Figure 5 above shows, just over half (51% or 36) of the 70 complaints and queries in 2021 related to researchers in the Faculties of Science and Medicine and Health. Most (41% or 9) of these complaints related to breaches of, or deviation from, either approved animal or human ethics protocols.

Who they were from

As Figure 6 shows, about half (49% or 34) of the 70 complaints and queries received were from people or entities outside of the university, including, members of the public, other researchers, regulatory bodies and former staff/students.

Most (43% or 30) of the complaints and queries were received from UNSW staff and other business areas, including RECS, on behalf of the ACEC/HREC.

An Ethics protocol deviation includes any breach, divergence, or departure from approved ethics protocol. Of the 18 complaints of breaches of protocol, half of the (56% or 10) complaints were referred to the CIO by the University’s Research Ethics and Compliance Support (RECS), on behalf of the Animal Care and Ethics Committee (ACEC) and Human Research Ethics Committee (HREC). All 10 researchers had self-reported breaches of approved ethics protocol to the ACEC/HREC.

Complaints about authorship, which generally comprise authorship disputes involving inclusion or exclusion of authors and claims of

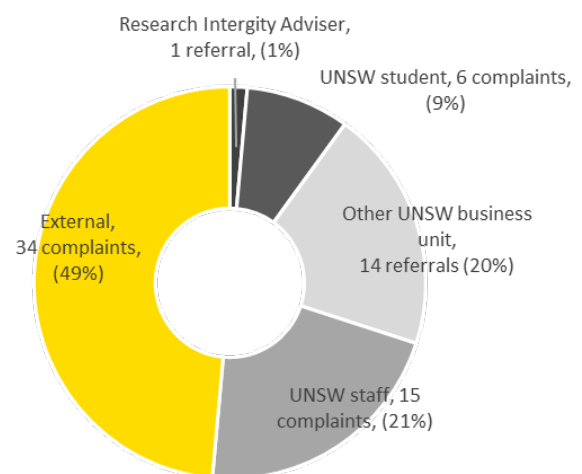


Figure 6: Source of complaint and queries

How they were managed

According to the *Research Misconduct Procedure*, an initial assessment is conducted by the CIO of each complaint to determine if it involves:

- 1) the conduct of research
- 2) a UNSW researcher/s; and
- 3) a potential breach of the Research Code.

The CIO then determines whether the complaint may be addressed at the local level (e.g., matters related to research administration such as unintentional administrative errors, clerical errors/oversight) or requires a preliminary assessment.

The purpose of the preliminary assessment (further investigation) is to gather facts and to assess whether the facts of the complaint, if substantiated, would constitute a breach of the Research Code.

Of the 70 complaints received in 2021, just under half (46% or 32) of the 70 complaints and queries received were assessed as meeting the scope of the *Research Misconduct Procedure*. This represents a 28% increase in the number of complaints that met the scope of the *Research Misconduct Procedure* in 2020 (25 complaints).

Of the 32 complaints that met the scope of the *Research Misconduct Procedure*:

- 11 (29%) complaints related to researchers whose projects had deviated from approved ethics protocols. Of these, eight researchers had admitted to breaching the Research Code and no further investigations were required; and three complaints proceeded to a preliminary assessment (further investigation)
- 21 complaints were also referred for further investigation.

Of note in 2021 was the receipt of two complaints garnering significant media attention, alleging falsification/fabrication/misleading images, plagiarism and gift authorship involving 26 former and current UNSW authors and numerous authors from other Australian and international research institutions. Further information is set out in the text box on page 9 of this report.

In line with accepted practise, complaints about published papers involving UNSW authors are referred to the corresponding author institution to manage.

Of the 38 complaints and queries which did not meet the scope of the *Research Misconduct Procedure*:

- 20 complaints were referred to be managed under another university process, by another business area or by another organisation (e.g., workplace grievances were referred to UNSW Human Resources to according to the Staff Complaint Procedure, and student complaints to be managed under the Student Complaint Procedure). Of these, three were referred to a Research Integrity Advisor to attempt a mediation with the disputing parties; and
- 18 complaints were either queries to which CIO responded to or dismissed, with complainants advised that they did not relate to UNSW or that there was insufficient information to enable the University to proceed further.

Change to management of authorship and publication disputes

In 2021, the CIO undertook a full review of the UNSW *Authorship and Resolving Disputes between Authors Procedure* and replaced with the:

- *Research Authorship, Publication and Dissemination Policy*, which applies provisions in guides¹ released by the ARC, NHMRC and Universities Australia, on authorship and publication and dissemination of research, to support the application of the *Australian Code for the Responsible Conduct of Research*; and
- *Authorship and Publication Dispute Management Procedure*, which outlines the University's process for raising and resolving concerns and disputes about authorship and publication of all forms of research outputs.

Of note is that the policy:

- expands on, and clarifies, research authorship requirements, including the criteria for authorship
- replaces the requirement for an Authorship Statement with a recommendation that authors discuss and document the authorship agreement where there is more than one author of a research output; and
- sets out key responsibilities of researchers on authorship, publication and dissemination of research.

From 1 January 2022, parties may refer an authorship or publication dispute to a Head of School for mediation where they are unable to resolve the matter themselves. Where the dispute cannot be mediated it may be referred to a Research Integrity Advisor (Associate Dean of Research) for determination of authorship.

INVESTIGATIONS

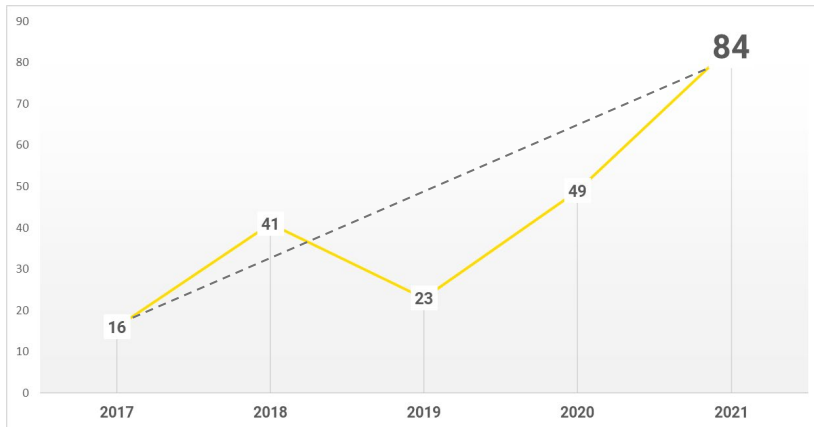


Figure 7: Number of matters arising from complaints by year - 2016-2021

'PubPeer matters'

In October 2021, UNSW received two complaints alleging falsification/fabrication/misleading images, plagiarism and 'gift authorship' in 17 papers published by UNSW authors in collaboration with authors at several other Australian and international research institutions.

Concerns about the papers, published between 2003 and 2021, were initially raised by *PubPeer*, a post-publication peer review platform and by an online research integrity blog.

Of the 17 papers, current and former UNSW researchers were corresponding authors on 11 papers and co-authors on six papers.

To date, the complaints have raised a total of 26 matters for investigation by the CIO across 16 papers, with each matter alleging that a current or former UNSW researcher had breached one or more responsibilities under the Research Code – collectively dubbed the 'PubPeer matters'.

A further six papers, in which an affiliated researcher from another Australian university is corresponding author, were referred to that university to manage.

A single complaint may raise one or more concerns alleging breaches of the Research Code involving one or multiple researchers. Additional allegations and/or respondents may subsequently be identified by the CIO during the initial assessment and/or preliminary assessment⁴.

In 2021, the CIO managed several complaints which raised multiple matters.

Each matter represents an allegation that a researcher had one or more breaches of the Research Code.

While most complaints raised one matter (80% or 28 complaints) there were four complaints that raised five or more matters each, including the two complaints that raised the 'PubPeer matters' (26 matters in total).

As figure 7 above shows, in 2021 the 32 complaints which required further investigation raised a record 84 matters.

The majority (77% or 65) of the 84 matters alleged a single breach of the Research Code, with 20% (or 17 matters) alleged two breaches; and just two matters alleged three or more breaches of the Research Code.

As indicated earlier in this report, **eight matters did not require further investigation as the researchers had admitted to breaching the Research Code.** A determination of a breach of the Research Code was made on all but one of the matters (as it involved a minor clerical/administrative error).

Of the 84 matters, 76 matters required a preliminary assessment (further investigation) according to the UNSW *Research Misconduct Procedure*.

⁴ The gathering and evaluation of information/evidence and assessment.

Which disciplines

As shown by Figure 8, just under three-quarters (74% or 62) of the 84 matters raised in 2021 were in the disciplines of medicine, health and science.

Most (56% or 35) of the 62 matters stemmed from two complaints alleging falsification and/or fabrication of research or use of falsified and/or fabricated research. One of those complaints raised the 26 'PubPeer matters' – which spanned three discipline areas, with most matters in the medical, health and science.

Most (4 of 6 matters) relating to UNSW Canberra involved researchers in Engineering and Information Technology.

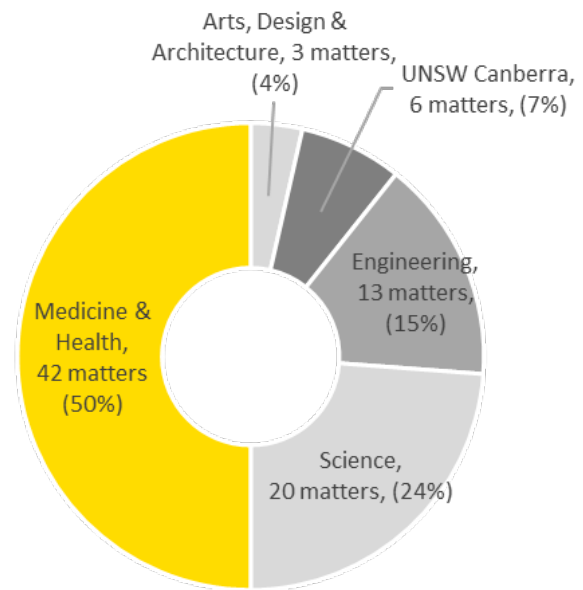


Figure 8: Breakdown of matters by discipline

What the matters involve

As Figure 9 below shows, the primary allegation of most (43% or 36) of the 84 matters managed by the CIO in 2021 involved falsification and/or fabrication of research/ research data. As indicated above, 35 of these 36 matters stemmed from two complaints – 26 matters known as the 'PubPeer matters' and nine matters raised by a single complainant based overseas.

Approximately two-thirds (65% or 15) of the 23 matters alleging a failure to conduct research responsibly involved alleged failure in research supervision and mentoring, and/or breaches of copyright.

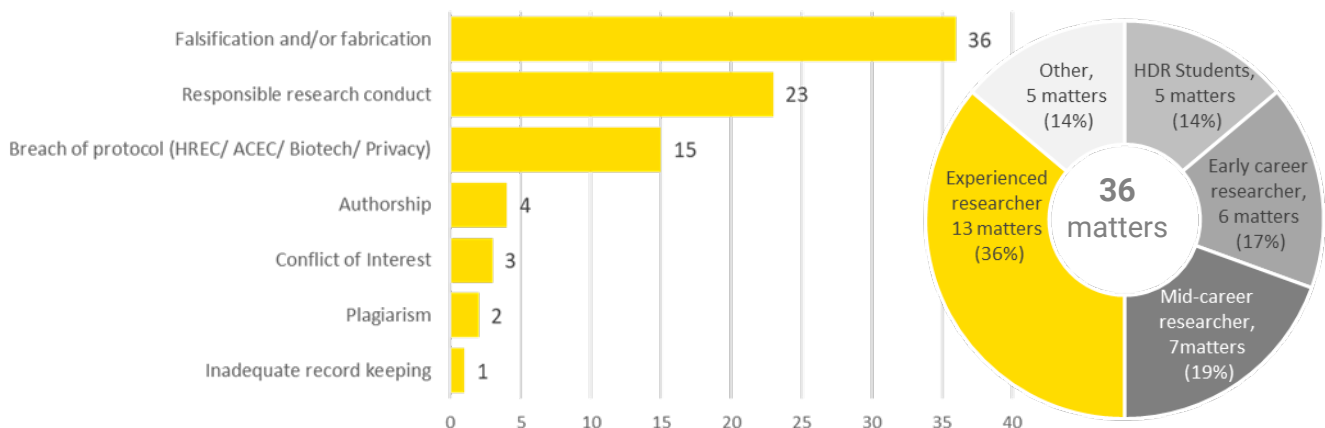


Figure 9: Breakdown of matters by type of alleged breach – and breakdown by HR level of the 36 matters alleging falsification and/or fabrication of research

What level of researcher experience

As indicated by Table 1 over the page, 37 (or 44%) of the 84 matters raised in 2021 involved experienced researchers. Allegations raised crossed a range of conduct, including alleged failure in research supervision and training, deviation from approved ethics protocol, failure to declare conflicts of interest, and falsification and/or fabrication of research data/findings. Of note is that a quarter (24%)

or 9) of these matters were a part of the PubPeer matters – with five matters involving conjoint appointees and a visiting Fellow at the time.

HR Level	# of matters raised in 2021
HDR Student	18
Early-career (Level A)	7
Mid-career (Level B-C)	15
Experienced (Level D-E)	37
Professional staff	7
Total	84

Table 1: Breakdown of matters by researcher experience (HR level)

Of the 18 matters relating to HDR students:

- 11 (61%) matters allege plagiarism in theses by former HDR students and were raised by a single complainant
- Three matters were linked to the PubPeer matters and involved former HDR students; and
- One complaint alleged that a current HDR student had plagiarised content from a research integrity training module.

Of the 15 matters relating to mid-career researchers, approximately half (47% or 7 matters) allege falsification and/or fabrication of research data/findings, with six of these matters linked to PubPeer matters.

Of the seven involving professional staff – three matters relate to PubPeer matters and two matters relate to the allegation of falsification and/or fabrication of research data/findings raised by the overseas complainant (which raised 9 matters in total).

OUTCOMES

In 2021, the CIO finalised 29 matters (including two matters relating to one researcher). Of these matters, approximately 59% (17 matters) stemmed from complaints raised in 2020 - including a complaint which ARIC recommended that UNSW re-assess/investigate.

As shown in Figure 10, most (48% or 14) of the 29 matters finalised were found to be unsubstantiated (where all allegations raised in the matter were unsubstantiated). Just under a quarter (24% or 7 matters) were found to be partially substantiated (where part or some allegations were substantiated), and 28% (8 matters) were found to be substantiated (where all allegations were substantiated).

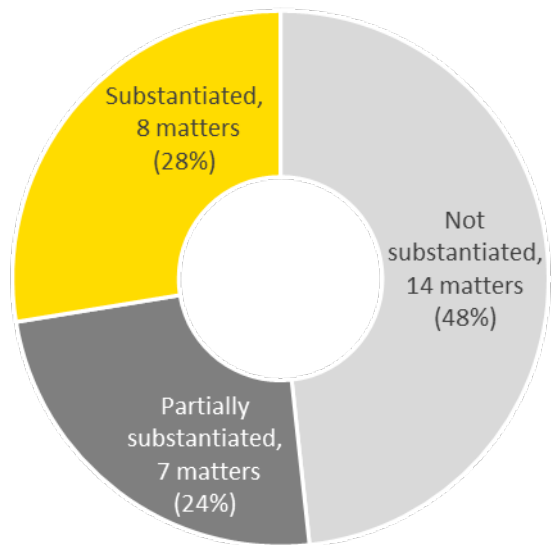


Figure 10: Outcome of matters finalised in 2021

It should be noted that five of the eight matters which were substantiated involved researchers who had admitted to breaching the Research Code by unintentionally deviating from approved ethics protocols. These five matters proceeded to a determination without requiring an investigation as researchers had admitted to breaching the Research Code. Outcomes in these five matters ranged from a 'minor' to 'major' (but not Research Misconduct) breaches of the Research Code.

Of note, and as shown in Table 2 below, in 85% of the matters where allegations were substantiated or partially substantiated, the finding was that a 'minor breach' of the Research Code against the researchers was determined.

Researcher level	No breach	Minor breach	Major (serious) breach	Funding body actions
HDR Student		2		
Early-career (Level A)	1			
Mid-career (Level B-C)	4	2		
Experienced (Level D-E)	8	6	2	2
Other	1	1		
Total	14	11	2	2

Table 2: Breakdown of outcomes by researcher experience (HR Levels)

Breach of the Research Code

A breach is a failure by a UNSW researcher to meet the principles and responsibilities of the Research Code. A breach of the Research Code can occur along a spectrum, from minor (less serious) to major (more serious). A major breach, or repeated breaches, of the Research Code may constitute Research Misconduct.

Responsible Conduct
(No breach)

Minor (Less Serious)
Breach

Research Misconduct
Major (Serious)
Breach or Repeated
Breaches

Corrective action arising from findings of a breach of the Research Code over the reporting period include:

- measures to mitigate the risk of researchers deviating from approved ethics protocol in the future
- submitting a modification to an approved ethics protocol
- correction request to Journals
- counselling with the Head of School; and
- remedial training on research integrity and researcher supervision.

ARC and NHMRC

Australian Research Council (ARC) and National Medical and Health Research Council (NHMRC) funding agreements and policies requires research institutions to report potential breaches and findings of breaches of the Research Code where they relate to prospective/current recipient of research funding.

In 2021, UNSW notified the ARC/NHMRC of 13 matters. In most cases, the ARC/NHMRC indicated that they were 'satisfied with investigations and actions taken' by the University. The ARC applied consequential actions to two researchers – seeking assurances from the DVCRE in relation to researcher compliance with their responsibilities in current and future funded projects for a period of up to two years.

There was only one request made by the Australian Research Integrity Committee (ARIC) in late-2021 to review the investigation a matter which was finalised earlier in 2021. The review is still in progress.

Go8 comparison

The 2018-2021 Group of Eight (Go8) Universities report on Research Integrity comparison of matters across member institutions is currently being prepared being compiled. An update to indicate how UNSW compares to other Go8 member institutions will be provided once the information is available.

KEY RISKS & CONTROLS

Identified risk	Controls in place	Planned in 2022+
<p>Poor awareness and understanding of Research Integrity leads to questionable research practices, which impacts researcher and university credibility and trust in research.</p>	<ul style="list-style-type: none"> Codes and procedures are readily available and accessible Researcher training, including Epigeum Research Integrity training, supervisor training, research data management training) Research Integrity Advisors in each Faculty to promote research integrity and advise researchers on relevant UNSW codes, guidelines and procedures about the responsible conduct of research. 	<ul style="list-style-type: none"> Communications and engagement strategy focused on ongoing and proactive awareness raising and understanding of Research Integrity. <p>Including:</p> <ul style="list-style-type: none"> More face-to-face information sessions to researchers on research integrity Developing and updating online guidance for researchers on: <ul style="list-style-type: none"> Responsible conduct of research Authorship and publication (including collaborative research best practice) Conflict of interest Plagiarism Grant funding rules
<p>Falsification and/or fabrication of research data/findings leads to unreliable results, which impacts research and university credibility and public trust in research.</p>	<ul style="list-style-type: none"> Policies and procedures on data management, open access and peer review Strong supervision and mentorship Regular review of lab books Peer review 	<ul style="list-style-type: none"> Streamline investigative processes and using innovative technology-based tools to detect image manipulation. Implement Complaints and Investigations Project review recommendations Developing iThenticate training video Retraction project to identify problem trends in publication related to Research Integrity issues
<p>Contract cheating and plagiarism leads to work submitted not being the work or words of the researcher/s, which impacts researcher and university credibility and trust in research.</p>	<ul style="list-style-type: none"> Promoting good supervision and mentoring Warning issued to students of contract cheating Requirement that all supervisors use iThenticate before theses are submitted for examination 	<ul style="list-style-type: none"> Streamline investigative processes and using innovative technology-based tools to detect image manipulation. Implement Complaints and Investigations Project review recommendations Developing iThenticate training video Retraction project to identify problem trends in publication related to Research Integrity issues
<p>Breakdown in researcher relationships/communi</p>	<ul style="list-style-type: none"> Codes and procedures Onboarding, induction and training 	<ul style="list-style-type: none"> Promoting respectful relationships

Identified risk	Controls in place	Planned in 2022+
<p>cations leads to authorship and publication disputes, which impacts on the dissemination of research.</p>		<ul style="list-style-type: none"> • Communications and guidance for researchers on authorship and publication good practice • Training for Heads of Schools and RIAs to resolve authorship disputes
<p>Poor research supervision results in poor research practice, which impacts researcher and university credibility and trust in research.</p>	<ul style="list-style-type: none"> • Codes and procedures • Supervision training 	<p>Graduate Research School to continue to drive an educative approach and cultural change among new and emerging supervisors.</p>
<p>Unintended breach of ethics protocol results in poor research practice, which impacts researchers ability to publish results</p>	<ul style="list-style-type: none"> • Codes and procedures • Ethics Committees 	<p>Go8 benchmarking exercise on protocol deviation management</p>
<p>Under-reporting of breaches of the Research Code results in poor research practices being accepted, which impacts the quality and reputation of research at UNSW.</p>	<ul style="list-style-type: none"> • Educative approach to minor breaches of ethics protocol designed to streamline the process of reporting breaches of ethics protocol. Under this approach, researchers are encouraged to self-report breaches of ethics protocol. 	<ul style="list-style-type: none"> • Improved online information on how to lodge a complaint about questionable research practices • Improved information on how to identify and pathways to report breaches of the Research Code • Communications and engagement strategy focused on ongoing and proactive 'speak up' integrity culture • Rolling communication to reinforce the message of protections for complainants.

KEY DEVELOPMENTS & ACTIVITIES IN 2021

Key developments and initiatives undertaken by the CIO to promote and manage research integrity at UNSW:

- Quarterly Ethics and Integrity Forums

Co-chaired by CIO and RECS, the quarterly meetings provide Research Integrity Advisors with the opportunity to discuss developments, issues and cases. These meetings also allow the CIO to get essential feedback to inform proposed research integrity outreach activities.

- Information sessions

The CIO conducted five presentations to Faculties and Schools on Research Integrity, including students undertaking Honours.

- Participation in quarterly Go8 REIG meetings

- NSW RI meetings

- Enhancement of CIO operating budget and resources, including two additional Senior Case Managers and a new prevention and engagement team, to commence in 2022

- An independent review of the management of complaints and Investigations at UNSW undertaken

- Review of complaints management system was undertaken with a view to procure a system which is fit-for-purpose.

- Review of the *Research Code of Conduct* and *Research Misconduct Procedure*

- Full review of the *Authorship and Resolving Disputes between Authors Procedure* and replaced it with the *Research Authorship, Publication and Dissemination Policy* and *Authorship and Publication Dispute Management Procedure* (see Page 8 of this report).

Benchmarking Go8 processes and outcomes for ethics protocol deviations

In late-2021, the CIO, in collaboration with Research Ethics Compliance Support (RECS), commissioned a project to benchmark the University's current process for managing breaches and deviations from animal and human ethics protocols against practices followed by other Group of Eight universities (Go8).

The purpose of the project is to gather information from the Go8 to assist UNSW to:

- 1) benchmark its ethics protocol deviation management process; and
- 2) identify changes to current process and practice to better align with best practice across the Go8.

The project is now underway and is expected to conclude in the second quarter of 2022.

GLOSSARY & DEFINITIONS

ACEC	UNSW Animal Care and Ethics Committee
ARC	Australian Research Council
Australian Code	<i>Australian Code for Responsible Conduct of Research 2018</i> , jointly published by the National Health and Medical Research Council, Australian Research Council and Universities Australia
Allegation	A claim or assertion arising from a Preliminary Assessment that there are reasonable grounds to believe a breach of the Research Code has occurred.
Breach?	
CIO	Conduct and Integrity Office, in the Division of Planning and Assurance.
DVCRE	Deputy Vice-Chancellor, Research and Enterprise
Fabricate or fabrication	Creating or reporting data or results without conducting research or the reported research and reporting the data as gathered through accepted research practices.
Falsify or falsification	Manipulating research materials, equipment, processes, or changing or omitting data or results such that the research is not accurately represented. Falsification also includes the selective omission/deletion/suppression of conflicting data without scientific or statistical justification.
HDR	Higher Degree Candidate - A person enrolled in a UNSW Higher Degree Research program (Doctor of Philosophy, Professional Doctorate, Masters by Research or Master of Philosophy).
Matter	Each matter represents an allegation that a researcher had one or more breaches of the Research Code.
HREC	UNSW Human Research and Ethics Committee
NHMRC	National Health and Medical Research Council
Preliminary Assessment	The gathering and evaluation of information/evidence and assessment
Plagiarism	Plagiarism at UNSW means using the words or ideas of others and passing them off as your own, including copying, inappropriate paraphrasing, collusion, inappropriate citation and self-plagiarism as defined in the UNSW Plagiarism Policy
RECS	UNSW Research Ethics Compliance Support, in the Division of Research & Enterprise
RMP	UNSW <i>Research Misconduct Procedure</i>
Research Code	UNSW <i>Research Code of Conduct</i>
Researcher	Person or persons affiliated with UNSW who conducts research. At UNSW this includes UNSW academic staff, UNSW professional staff, non-academics/professionals undertaking research, conjoint appointments (those who have been conferred an academic title by UNSW in accordance with the UNSW Conferring Academic Titles Procedure), and visiting appointments undertaking research at UNSW, whether on a full-time or part-time, or fixed term, continuing or casual basis. Researchers also include Research Trainees, Higher Degree Research Candidates and Coursework Students.
University	The University of New South Wales

APPENDIX

Process for handling complaints about research at UNSW

