



Research Integrity Annual Statement 2022

This report summarises the actions and activities undertaken by the Cancer Research UK Beatson Institute in 2022 to promote the generation of high quality, robust and ethical research and to embed an institutional culture of research integrity. The report content aligns with the template developed by the UK Research Integrity Office (UKRIO) and the signatories to the Concordat to support research integrity.

Section 1: Key contact information

Question	Response
Organisation name	CRUK Beatson Institute
Organisation type	Independent research performing organisation
Date statement approved by governing body	28/03/2023
Institute's research integrity page web address	https://www.beatson.gla.ac.uk/about/research-integrity.html
Named senior member of staff	Prof. Martin Bushell martin.bushell@glasgow.ac.uk
Named point of contact	Dr Catherine Winchester c.winchester@beatson.gla.ac.uk

Section 2: Promoting high standards of research integrity and positive research culture. Description of actions and activities undertaken

2A. Description of current systems and culture

We advocate the core values of research integrity (honesty, ethics, rigour, openness, transparency and accountability) in the generation, management and publication of data. Research integrity is fundamental to all aspects of our research and as such, all activities are endorsed by the Institute Director and Senior Management Team.

• Policies

Research integrity at the Beatson is underpinned by the following policies relating to responsible research practices and a culture that is collaborative, inclusive and diverse:

- Code of Good Practice in Research
- Data Preservation
- Data Protection



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- Ethics
- Financial Conflict of Interest
- Intellectual Property and Technology Transfer
- Misconduct in Research
- Press and Social Media
- Publishing and Open Access
- Statement on Dealing with Allegations of Research Misconduct Under United States Public Health Service (USPHS) Research-related Activities for Foreign Institutions
- Whistleblowing

In addition, we have policies that encompass generating a positive research culture: Career Development, Equal Opportunities, Bullying and Harassment, Adoption Leave and Pay, Maternity Leave and Pay, Paternity Leave and Pay, Shared Parental Leave and Pay, Special Leave, Flexible Working, Hybrid Working, Immigration and Visa and Long Service.

• Systems

We have systems in place to ensure our research is conducted and communicated in a responsible manner.

Researchers at the Beatson are supported and protected by a dedicated research integrity adviser, who oversees research integrity training and raises awareness of best practice; supports data stewardship; develops and implements research policies and guidelines; conducts pre-submission manuscript reviews; supports post-publication data queries; coordinates the research integrity champions; engages with the sector to share and identify best practice; and is the internal and external point of contact for matters relating to research conduct.

We are fully committed to open access publishing and as such our papers are published under the CC BY 4.0 licence and are archived at Europe PubMed Central to maximise readership and use. We encourage researchers to use the [Credit](#) taxonomy to define authors' precise contributions and ensure appropriate credit is given and that authors are accountable for their data. To promote transparency and reproducibility in our papers, we encourage the publication of protocols, use of unique resource IDs obtained from the Research Resource Identifiers Portal ([RRID](#)), appropriate data presentation, such as the use of [Super Plots](#), and clear and precise descriptions of data and metadata, in compliance with [FAIR](#) standards. We have a mandatory process for archiving data associated with all publications and support data sharing and depositing in repositories. To disseminate best practice in reporting, we have guidelines for preparing manuscripts, which can be used in conjunction with our publication checklist (available from our inhouse research integrity toolkit). In addition, all manuscripts are reviewed by our research integrity adviser prior to journal submission or posting on pre-print servers.



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We have over 40 [research integrity champions](#), embedded within each research group and each core facility team. This voluntary role, mainly undertaken by early career researchers, enables grassroots activity in promoting and supporting research integrity. The champions play an invaluable part in disseminating information, implementing research policies and supporting the stewardship of published data in their groups, as well as engaging in projects with the research integrity adviser.

• Training

Research integrity training is mandatory for all researchers at the Beatson, from PhD students to group leaders, and forms part of the induction process for all new researchers. Attendance is monitored and recorded by the research integrity adviser.

Training is delivered as face-to-face workshops and seminars by the research integrity adviser and scientists with relevant research experience. The training programme includes an induction and sessions on integrity in scientific communication, integrity in managing research data and responsible image processing. As well as outlining our policies and expectations the programme raises awareness of reproducible and responsible research practices, encourages behaviour change and offers opportunities to discuss important issues and new initiatives underpinning research integrity. It also serves to highlight support and guidance available at the Institute. Our training is bespoke and covers generic issues, but course content is specific to the local environment and the research being conducted.

Guidance on experimental design, data acquisition, processing and analysis is also captured in the training researchers receive from the [Beatson's Advanced Technology](#) facility staff.

In addition, researchers receive generic training to foster a positive research culture; Developing Team Trust and Culture, Bullying and Harassment, Equality and Diversity, Unconscious Bias, Positive Mental Health at Work and Leadership Styles and Quality.

• Communications and engagement

To identify and share best practice and to stay up to date with current developments we are members of several national research integrity organisations:

- Cancer Research UK's research integrity group
- Scottish Research Integrity Network (SRIN)
- UK Reproducibility Network ([UKRN](#))
- UK Research Integrity Office ([UKRIO](#))

Information is disseminated internally via email, interactions with the research integrity adviser and champions, the research integrity training programme and the inhouse research integrity toolkit.



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• Culture, development and leadership

We foster a collaborative and inclusive research culture that aims for all researchers to thrive and conduct responsible research. This is facilitated by membership and participation in a variety of activities across the Institute enabling everyone's voice to be heard; EDI Forum and Advocates, Disability and Neurodiversity Group, LGBTQ+ Community and Allies, Staff Forum, Postdoc Forum and Eco Committee. Additionally, researchers are supported by the wellbeing advice in the Employee Assistance Programme on the HR portal and trained mental health first aiders.

Researcher development is at the forefront of our research culture. As well as training researchers with technical, scientific and professional skills they are supported through mentoring, advisers and annual performance and personal development reviews. Key competencies, such as building relationships, collaboration, communication and presentation skills, curiosity and innovation, leadership and management capability and scientific outreach, are also evaluated to ensure we are taking a holistic approach to researcher development.

Effective leadership is an important aspect of our research culture and as such all new Group Leaders attend the EMBO Laboratory Leadership course. We also run leadership and management training programmes across the Institute to continue leadership development for more experienced research leaders.

• Monitoring and reporting

Queries, allegations or investigations relating to research misconduct are recorded by the research integrity adviser. In accordance with our Misconduct in Research Policy, all concerns are reported to the Institute Director, all preliminary misconduct investigations are reported to the Chair of the Board of Directors and all formal investigations are reported to CRUK and any other funder of the research. Investigations concerning researchers and data generated at external organisations are reported to the relevant funders and employers. Any problems identified in publications are reported directly to the journal concerned.

2B. Changes and developments during the period under review

In 2022, we used UKRIO's [self-assessment tool](#) for the Concordat to Support Research Integrity to review and strengthen the Beatson's research integrity activity and in compliance with the Concordat.

• Policies, practices and procedures

We revised the following policies to align with the Concordat to Support Research integrity and CRUK's research conduct policies, and benchmarked our practise against UKRIO's [guidance](#) on research misconduct investigations and UKRI's revised [policy](#) on governance of good research practice:

- Bullying and Harassment
- Code of Good Practice in Research



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- Data Preservation
- Misconduct in Research
- Press and Social Media
- Publishing and Open Access
- Whistleblowing

We also published a [statement](#) on our website on how we deal with anonymous allegations of research misconduct in our publications.

We have continued to engage with the sector.

As members of CRUK's research integrity group we contributed to the UKRI/CRUK/GuildHE commissioned [project](#) on research integrity indicators, articles for CRUK's cancer news blog ([An integral part of research](#) and Research with integrity – [the importance of communication](#)) and shared our experiences of establishing a data archiving system with other organisations.

We have worked with UKRIO on their [guidance](#) on Good Practice in Research: Research Integrity Champions, Leads & Advisers and contributed a case study on our research integrity champions and the annual statement on research integrity [template](#).

We presented at the Westminster Higher Education Forum policy [conference](#): The next steps for research integrity and reproducibility.

• Training

The research integrity training programme was revised to encompass policy revisions, national initiatives for responsible and open research and to encourage researchers to reflect on good research practises within their field. Training was conducted in person. We held 11 research integrity induction workshops, 7 integrity in scientific writing & communication workshops, 5 integrity in managing research data workshops and 1 responsible digital image processing seminar, for newly appointed research staff. We also held 1 workshop on establishing good research practices for postgraduate students on the University of Glasgow's MSc course in Cancer Research & Precision Oncology. In addition, we established training for the research integrity champions on their role and how to support their research groups.

Good research practice training continues informally within research groups and by the Beatson's Advanced Technology facilities. For example, the [BAIR](#) (Beatson Advanced Imaging Resource) educate and train scientists through a combination of lecture theatre theory (forums and short focused "techbites"), webinars and group and individual 1-2-1 practical sessions. The principles of experimental design (e.g. controls, replicates and sample preparation), reproducibility and avoiding bias (e.g. how the "observer effect" might influence the data collected), data analysis and data storage and sharing are discussed. Attention to quality control, reproducibility and

data sharing have become integral parts of the job responsibilities of the BAIR staff, as well as working with the data integrity team at the Beatson to implement best practice.

2C. Reflections on progress and plans for future developments

Employing UKRIO's [self assessment tool](#) to evaluate our research integrity activities was useful in identifying the need to update our research policies so that they reflect current best practice and are relevant and beneficial for researchers as well as the Institute.

Consolidating our experiences of dealing with anonymous allegations resulted in us publishing a statement on our website that reflects our actions in evaluating and responding to potential data problems as well as protecting our researchers and the Institute from unfounded allegations.

Engagement with the sector was useful for sharing practice and keeping abreast of current best practice.

In person training was beneficial for engaging with researchers, ensuring they understand the local and national research environment and culture, and support available.

2D. Case study on good practice

In 2022, a Beatson early career researcher (ECR) identified a gap in the working practices of our computational biologists. They realised that the local community of computational biologists was growing, that people often work remotely or individually and that the group could benefit from using a tool to share code and work collaboratively. To this end the ECR established a GitHub account for use by researchers and computational biologists at the Beatson. This code hosting platform enables code to be stored and shared, versions to be tracked, tools from other repositories to be accessed and researchers to network and collaborate. In addition, it will enable complete code, used to analyse published data, to be shared, evaluated and used by external computational biologists. The Beaton GitHub repository now has 22 members who are using it to record, update or share their code and to work collectively on projects, avoiding duplication of effort. The ECR is continuing to act as administrator and is actively encouraging other people to use it so that it becomes an Institute-wide code repository.



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Section 3: Addressing research misconduct

3A. Statement on processes that the organisation has in place for dealing with allegations of misconduct

Our **Misconduct in Research** policy sets out our procedure for making an allegation of research misconduct and how we deal with any such allegation, including the investigation steps, timescale, team, reporting and recommendations. The named person for making allegations of research misconduct is the research integrity adviser, Dr Catherine Winchester, who undertakes an initial informal assessment of the validity and seriousness of any allegation. A report is submitted to the Institute Director who determines whether there is sufficient evidence of research misconduct to proceed with an investigation, which comprises of preliminary and formal stages. The preliminary investigation is undertaken by two staff members who have no conflicts of interest in the case, are unbiased and have expertise to evaluate the appropriate research issues. The preliminary investigators conclude whether the investigation should end or proceed to a formal investigation, in a report submitted to the Director. At this time, a summary of the report is submitted to CRUK's Chief Executive Officer, Director of Research Funding, Communications and Partnerships, Head of Research Funding Operations and Senior Policy & Governance Manager. The formal investigation panel includes an external member, as well as appropriate members of staff, who may or may not have been involved with the preliminary investigation. Their report is submitted to the Director, Chair of the Board of Directors, CRUK's Chief Executive Officer, Director of Research Funding, Communications and Partnerships, Head of Research Funding Operations and Senior Policy & Governance Manager, and if appropriate other funding organisations.

The policy was revised in 2022 to align with the revised Concordat to Support Research Integrity and CRUK's research conduct policies, also revised in 2022, and followed UKRIO's guidance on research misconduct investigations and UKRI's revised policy on governance of good research practice. The policy is subject to ongoing review. In addition, in 2022, we published a statement on our website on our procedure concerning anonymous allegations about published data.

The publicly accessible web link to our Misconduct in Research Policy is not yet in place.

Our **Whistleblowing** policy is designed to enable staff that have a reasonable and honest suspicion of malpractice or impropriety, including research misconduct, to raise such concerns. Any concerns raised are taken seriously and investigated responsibly, without fear of reprisal.

The Institute has appointed an independent third party, NAVEX, to provide an external whistleblowing hotline service that is available 24 hours a day, 7 days a week.



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Our **Bullying and Harassment** policy aims to create an environment that promotes dignity and respect to all, and in which individual differences and the contributions of all our staff are recognised and valued. All complaints of harassment or bullying are dealt with promptly, either informally by addressing the harasser or seeking advice from HR or the complainant's Group Leader or following our formal procedure, whereby an investigation is undertaken using the Beatson's Disciplinary and Grievances procedures. If necessary, counselling or training will be offered to the complainant and those accused of bullying or harassing behaviour. This policy aligns with CRUK's Policy on Dignity at Work in Research. The bullying and harassment policy and procedure is subject to ongoing review.

The Beatson creates and embeds a research environment in which all staff and students feel comfortable to raise concerns or report instances of misconduct through research integrity training with the research integrity adviser, signposting on our research integrity toolkit on the intranet and on our research integrity page on the Beatson website and our research policies. In addition, the research integrity adviser is available for staff and students to have confidential discussions, raise concerns or report research misconduct. In line with the Concordat to Support Research Integrity, our research integrity induction emphasises researchers' responsibility to report research misconduct.

Key lessons on the complexity of research conduct issues were learned from investigating anonymous allegations of research misconduct. These related to the availability of primary data, common practices at the time data were generated, data preservation at the time data were generated and researcher mobility, in our ability to evaluate data and resolve allegations. These experiences contributed to revisions to our policy on Misconduct in Research, defining our procedure concerning anonymous allegations about published data and publishing a statement on our website.

3B. Information on investigations of research misconduct that have been undertaken

In 2022, there were no formal research misconduct investigations at the CRUK Beatson Institute. However, anonymous allegations of research misconduct, made by Claire Francis or posted on PubPeer, and concerns raised by a journal, were reviewed by the research integrity adviser in accordance with our Misconduct in Research Policy and Statement (see Table below). None of the initial informal investigations performed by the research integrity adviser proceeded to preliminary or formal research misconduct investigations.



Type of allegation	Number of allegations			
	Number of allegations reported to the organisation	Number of formal investigations	Number upheld in part after formal investigation	Number upheld in full after formal investigation
Fabrication	2	0	0	0
Falsification	0	0	0	0
Plagiarism	0	0	0	0
Failure to meet legal, ethical and professional obligations	0	0	0	0
Misrepresentation (eg data; involvement; interests; qualification; and/or publication history)	5	0	0	0
Improper dealing with allegations of misconduct	0	0	0	0
Multiple areas of concern (when received in a single allegation)	0	0	0	0
<i>Other*</i>	0	0	0	0
Total:	7	0	0	0