Research Integrity Annual Statement 2021

This report summarises the actions and activities undertaken by the Cancer Research UK Beatson Institute in 2021 to promote the generation of high quality, robust and ethical research and to embed an institutional culture of research integrity.

• Research culture and integrity

Researchers at the Beatson Institute 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. Research integrity is absolutely fundamental to all aspects of our research and as such, all activities undertaken by the research integrity adviser are endorsed by the Institute Director and Senior Management Team. Further information on the Beatson Institute's approach to research integrity can be found here.

• Actions and activities

Training

Research integrity training is mandatory for all our researchers, from PhD students to group leaders and forms part of the induction process for all new researchers. Training is delivered by the research integrity adviser and scientists with relevant research experience. As well as outlining our policies and expectations the training programme raises awareness, encourages behaviour change and offers opportunities to discuss important issues underpinning research integrity. Our training is bespoke and covers generic issues but course content is specific to the local environment and the research being conducted.

This year, the training programme was revised, with a focus on reproducibility and integrity in reporting research findings. Training was predominantly conducted using virtual video conferencing but we returned to face-to-face training in October. We held 13 research integrity induction workshops, 5 integrity in scientific writing workshops, 5 integrity in managing research data workshops, one responsible digital image processing seminar and 6 experimental design workshops. We had high attendance at our research integrity training (Induction – 100%, integrity in scientific writing – 100%, integrity in managing research data – 95% and responsible digital image processing – 100%).

Promoting research integrity in publications

We endorse the core values of research integrity in our publications; honesty, ethics, rigour, openness and transparency and accountability. As an institute we are fully committed to open access publishing and as such all our papers are published under the CC BY 4.0 licence to maximise readership and use. We encourage researchers to use the CRedIT taxonomy to define authors' precise contributions to 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 SuperPlots, and clear and precise descriptions of data and methodology. To disseminate best practice in reporting, we have prepared guidelines for preparing manuscripts, which can be used in conjunction with our publication checklist.

Open research

We advocate open research through open access publishing, publishing pre-prints, publishing protocols, archiving papers at Europe PubMed Central, depositing data in repositories, sharing data and code, and through collaborative research.

Research Integrity Champions

We now have 38 research integrity champions, embedded within each research group and each core facility team, who play an invaluable role in promoting research integrity, disseminating information, implementing research policies and supporting the stewardship of published data. In 2021, their role was formalised and a description is available on the Beatson Institute's website. The research integrity champions have contributed to lab meetings on research integrity, held data management discussions and supported the research integrity training of our PhD students. The annual meeting of the research integrity champions and the research integrity adviser was held via virtual video conferencing in 2021.

Communication

In 2021, a research integrity toolbox was created on the Beatson Institute's intranet to collate training material, guidelines, policies, articles, event information and other resources relating to research integrity. Information is also disseminated by email and the Research Integrity Champions.

External membership

To identify and share best practice and to stay up to date with current developments we are members of several national research integrity organisations:
- UK Research Integrity Office (UKRIO)
- Scottish Research Integrity Network (SRIN)

- UK Reproducibility Network ([UKRN](link))

External engagement

In 2021 we attended the UK Research Integrity Office's virtual conference sessions, the World Conference on Research Integrity virtual conference, the Computational Research Integrity virtual conference and the STM week innovations seminar. We also engaged with external organisations to share practice, including Cancer Research UK, the University of Glasgow, the CRUK Manchester Institute, the Francis Crick Institute and the Swiss Laboratory Animal Science Association. We contributed to evidence submitted to the House of Commons [reproducibility inquiry](link) (SRIN and AMRC) and the [STM](link)'s recommendations on handling image integrity issues document.

• Processes for dealing with allegations of research misconduct

In 2021, we updated our Misconduct in Research Policy to align with the Concordat to support research integrity and to incorporate lessons learned. The policy sets out the procedure for making an allegation of research misconduct and how we deal with any such allegations, including the investigation steps, timescale, team, reporting and recommendations. Subsequent actions are determined by the Institute Director and may conclude with disciplinary procedures. The process is transparent, timely, robust, fair and appropriate. The publicly accessible web link to our Misconduct in Research Policy is not yet in place.

• Research misconduct investigations

In 2021, there were no formal research misconduct investigations at the CRUK Beatson Institute. However, anonymous allegations of research misconduct, made by Claire Francis and posted on PubPeer, were reviewed by the research integrity adviser in accordance with our Misconduct in Research Policy. No evidence of research misconduct was found. In one case mistakes were identified and corrected figures were prepared using the correct original primary data and submitted to the journal concerned.

• Reporting research misconduct

The open and collaborative environment of the Beatson Institute facilitates the communication of research misconduct concerns and allegations. In addition, the research integrity adviser is available for staff and PhD students to have confidential discussions and to 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. Staff and PhD students making such allegations are protected as described in our Misconduct in Research and Whistleblower policies. The publicly accessible web link to our research integrity policies is not yet in place.

• **Named person**

In accordance with the Concordat to support research integrity, the named point of contact is Dr Catherine Winchester, Senior Research Adviser (grants and research integrity). Allegations of research misconduct can also be made to Prof. Owen Sansom, Director, or to Prof. John Iredale, Chair of the Board of Directors, if inappropriate to be made to the Director.

This statement was prepared by the Beatson Institute's Research Integrity Adviser and approved by the Beatson Institute's Senior Management Team – January 2022. Further information on the statement can be obtained by emailing Dr Catherine Winchester.

Previous statements can be found here.

Links

Beatson Institute's research integrity page -
https://www.beatson.gla.ac.uk/About/research-integrity.html

Beatson Institute's research integrity champion role description -
https://www.beatson.gla.ac.uk/About/research-integrity.html

UKRIO - https://ukrio.org

UK Reproducibility Network - https://www.ukrn.org

UK Parliament Science and Technology Committee Reproducibility and research
integrity inquiry - https://committees.parliament.uk/work/1433/reproducibility-and-
research-integrity/

STM's recommendations on handling image integrity issues - https://osf.io/xp58v/

Research integrity adviser – Dr Catherine Winchester –
c.winchester@beatson.gla.ac.uk

Previous research integrity statements -
https://www.beatson.gla.ac.uk/About/research-integrity-annual-statement-
2020.html